

NASA CR

ANALYZE SATELLITE-TRACKING LASER DATA
IN ORDER TO STUDY SATELLITE EPHEMERIDES, SOLID-EARTH
AND OCEAN TIDES, AND LASER SYSTEM PERFORMANCE

Final Report

For the period 3 January 1980 to 31 December 1980

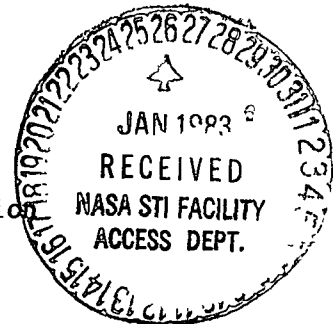
Contract No. NAS5-25998

Principal Investigator
Dr. E.M. Gaposchkin

August 1981

Prepared for
National Aeronautics and Space Administration
Goddard Space Flight Center

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138



The Smithsonian Astrophysical Observatory
and the Harvard College Observatory
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ANALYSIS OF LASER DATA

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Final Report

1. INTRODUCTION

This report covers the work done under NASA Contract NAS5-25998, Analysis of Satellite Tracking Laser Data, and covers the period 3 January 1980 through 31 December 1980. The overall objectives of this contract are summarized in the next section. During this period, work was undertaken in six (6) areas:

1) Study of the unmodeled acceleration of the Lageos satellite.

2) Preparation and execution of the program to Monitor Earth Rotation and Intercompare the techniques of observation and analysis (MERIT).

3) Study of fitting methods for normal points for laser ranging data.

4) Investigation of the systematic errors of the SAO laser systems, and the improvement in accuracy resulting from installation of the 5 nsec pulse chopper.

5) Improved determination of the solid-earth (body) tides and ocean tides from the analysis of satellite perturbations.

6) Verification and improvement of the accuracy of the analytical theory used for orbit determination.

Highlights of this investigation are as follows:

1) The decrease in the semimajor axis of Lageos is considerably larger than expected. A careful discussion of gravitational effects, reference system effects, solar radiation pressure, earth albedo pressure, neutral atmospheric drag, the Poynting Robertson Effect, and electrodynamic effects has found that they are all too small to explain the observations.

2) Quick-look data provided by SAO, NASA, and other cooperating agencies are being used to determine the earth's polar motion and length of day. This process is now routine, and provides these geophysical data to the Bureau International de l'Heure (BIH) every five days. Preliminary results indicate that SAO's quick service data are superior to those of any other contributor. This service was continued through December 31, 1980.

3) A spline fit program to: edit bad data, and calculate normal points for laser tracking data was developed. The normal points have very small noise, and can be used for geophysical analysis and investigation of system accuracy.

4) The systematic errors of the SAO laser data before installation of the pulse chopper were about 1 m for Lageos. After the installation of the pulse chopper, the systematic errors are no larger than 20 cm.

5) The body and ocean tides have been redetermined by using refined models of drag and solar radiation pressure and incorporating corrections for the BIH79 system. The tides determined are more consistent. However, the ocean tide models consistently underestimate the tidal amplitude. The frequency dependence of the love number at the K1 and Ssa frequencies is confirmed. The value of the love number k2 at the (nearly diurnal) K1 frequency is $k_2=0.2233$. At the period of 182.63 days, the Love number and dissipation factor are $k_2=0.3765$ and $Q=22$. Also, annual and semiannual variations in UT1 were measured.

6) Refinements to the reference system perturbations were derived and incorporated. The short periodic perturbation for the sun and moon were improved to an accuracy of better than 1 cm. The overall accuracy of the analytical theory for long period effects is one centimeter or better. The short period perturbations due to the zonal harmonics and tides are also better than one centimeter. The short period perturbations due to all the tesseral harmonics is 29 centimeters.

2. OBJECTIVES

The Smithsonian Astrophysical Observatory participates in NASA's Geodynamics Program and supports its goals, one of which is the use space techniques to understand the dynamic processes, past and present, which form the present geological features of the earth. Our program utilizes laser ranging to artificial earth satellites.

SAO will pursue five broad categories of investigations. All of them have the common factor of using satellite laser-ranging data to estimate a precise satellite ephemeris. The investigations are outlined below:

1) Certain satellites exhibit anomalous and unexplained acceleration. The orbit of Lageos, for example, shows unmodeled effects that are larger than our present model accuracy can reconcile. We propose to discuss these motions and, if possible, provide models for calculating them.

2) The ocean tide modifies the earth's external gravitational potential, and certain tidal constituents are resonant with a number of satellite orbits. Analysis of long-period satellite perturbations can provide numerical values for the tidal constituents. Data from Lageos, Starlette, and Geos 1, 2, and 3 will provide improved values of the major tidal constituents, as well as a unique opportunity to measure certain long-period ocean tides.

3) The earth's body tide also modifies the external potential, but in a basically simpler way than does the ocean tide. However, the geophysical parameter representing tidal deformation, the Love number k , is predicted to depend on the frequency of the tidal constituent owing to core-mantle resonance. The commensurability of certain body-tide constituents with a number of satellite orbits can provide numerical values for k at a number of frequencies on each of Lageos, Geos 1, Geos 2, Geos 3, and Starlette satellites. Also included in the measurement could be a variation in UT1 or Length of Day (LOD). This variation could be caused by a change in the mass distribution of the earth, which should complement the analysis of variations in LOD due to zonal winds in the atmosphere.

4) For most purposes, the terrestrial reference frame is rigidly fixed to a set of points on the earth's crust (ignoring tides and tectonic movement, this set of points is considered to be a rigid polyhedron). One such system is the Conventional International Origin (CIO). Another important reference frame is that defined by the principal axis of the moments of inertia of the earth. The principal axis system has not yet been

materialized, and we propose to measure it with respect to the earth's angular velocity unit vector using satellite perturbations caused by the motion of the principal axis system. By using other available data on polar motion (i.e., the motion of the CIO with respect to the angular-velocity unit vector), the position of the principal-axis system with respect to the CIO, or any other adopted reference system, can be established.

5) The accuracy of laser tracking data can be assessed by examining systematic biases in the data from each station. Any systematic residuals can be interpreted in terms of signal strength, calibration data, and data-reduction methods. We will use both long-arc and short-arc techniques to assess the available data base from SAO, NASA, and other organizations.

3. LAGEOS' ANOMALOUS ACCELERATION

Analysis is focused on the unmodeled secular acceleration of the Lageos orbit. The decrease in the semimajor axis (Figure 1) is considerably larger than expected, and has so far defied explanation. For example, a careful discussion of gravitational effects, reference system effects, solar radiation pressure, earth albedo pressure, neutral atmospheric drag, and the Poynting Robertson Effect by Gaposchkin (1979) found they were all too small to explain the observations. The possibility that an electrodynamic force was contributing to the forces acting on the satellite has generally been discounted. However, no complete analysis for this case has been made. A number of electrodynamic phenomena are examined below and summarized in Table 1. For many of the phenomena considered, the effects are far from those conventionally accepted. Therefore, one cannot completely rule out electrodynamic phenomena causing the anomalous acceleration. However, at this time they seem unlikely to offer an explanation. We look forward to analyzing additional tracking data (the calculations to date were based on 769 days), and a more careful discussion of the small variations that do occur in the acceleration.

One side benefit of the analysis was the recalculation of the satellite spin down, necessary for calculating the coupling of spin to orbital motion. We have found that the decay of the spin rate is much slower than predicted. It is now believed that the spin rate decreased by only 25% in 2 1/2 years, for example.

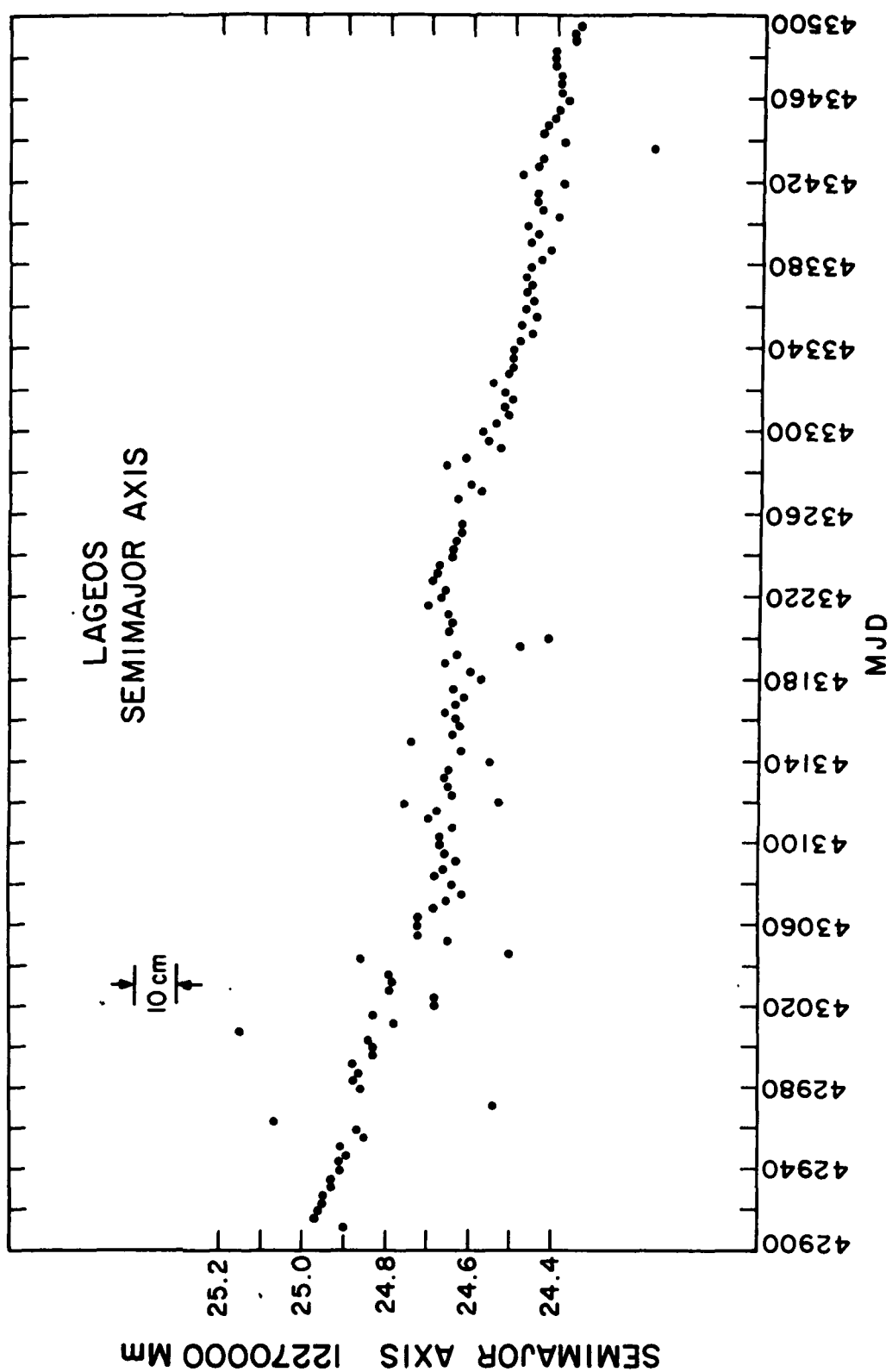


Figure 1. Calculation of the LAGEOS semimajor axis.

Table 1. Contributions to Lageos acceleration.

Phenomenal	Size mm/day	Remarks
1) Gravitational Effects	0.0	From theoretical consideration
2) Solar Radiation Pressure	-0.312	Assuming $A/M = 0.00689 \text{ cm}^2 \text{ g}^{-1}$
3) Albedo Pressure	-0.182	Assuming $\alpha = 0.219 + 0.410 \sin^2 \phi$
4) Atmospheric Drag	-.20	Extrapolating Jacchia's model multiplied by a factor of 3
5) Poynting Robertson	-0.020	
6) Inductive Drag	< -0.01	Total particle density < $10^4/\text{cm}^3$
7) Photoemission of Electrons	< -0.05	Maximum possible electron flux = $2 \times 10^{10}/\text{cm}^2/\text{sec}$ probably much less
8) Eddy Currents due to Variation of Magnetic Field	< 10^{-7}	
9) Electrostatic Dipole Change	< 10^{-12}	
10) Induced Electric Field	< 10^{-12}	
11) Coupling of Satellite Spin	< 2×10^{-4}	
12) Charge Drag (Coulomb Scattering)	?	
13) Change of G	3×10^{-4}	$\dot{G}/G = 3 \times 10^{-11} \text{ year}^{-1}$
14) Gravitational Radiation	10^{-39}	
15) Observed	-1.100	Unmodeled after removing effects of 1, 2, 3

A secular decrease of around 1 mm/day in the semimajor axis of the Lageos orbit remains unaccounted for [Gaposchkin, 1979]. Several possible sources of additional drag were considered and rejected. Here we investigate orbital dissipation due to satellite interaction with the terrestrial magnetic field and take another look at neutral and charged atmospheric drag. We include the force on the satellite due to the interaction of spin-induced eddy currents and the earth's nonuniform magnetic field. The slow despin rate of Lageos is explained as being an effect of small skin depth due to its high spin frequency.

In our analysis of electromagnetic orbital dissipation we make the following simplifying assumptions, all of which are reasonable for the purpose of obtaining order of magnitude estimates. The orbit is taken to be circular and polar, and the terrestrial magnetic field is assumed to be a dipole field. The satellite is taken to be a solid aluminum sphere. The lower electrical conductivity of the brass core would result in decreasing effects due to internal current flow. Some Lageos parameters used in our studies are found in Table 2.

First, we compute the energy dissipation rate to be accounted for. For a circular orbit the total energy, potential plus kinetic, of the satellite is the negative of the kinetic energy.

$$E_{\text{tot}} = - E_{\text{kinetic}} = - \frac{1}{2} m v^2$$

$$\frac{\Delta E_{\text{tot}}}{\Delta t} = - \frac{1}{2} m \frac{\Delta(v^2)}{\Delta t} .$$

Table 2. Lageos characteristics (CGS, gaussian units).

Radius	30 cm
Mass	4×10^5 g
Outer Material Aluminum (conductivity)	$\sigma_{\text{cond}} = 3 \times 10^{17} \text{sec}^{-1}$
Core Material Brass (conductivity)	$\sigma_{\text{cond}} = 1.5 \times 10^{17} \text{sec}^{-1}$
Orbit Radius	$a = 1.2 \times 10^9$ cm
Orbit Velocity	$V \simeq 5.5 \times 10^5$ cm/sec
ω Spin	$= 10 \text{sec}^{-1}$

We have

$$v^2 = \frac{M_{\oplus} G}{r}$$

for our circular orbit. So that

$$\Delta v^2 = - \frac{M_{\oplus} G}{r_{\oplus}^2} \left(\frac{r_{\oplus}}{r} \right)^2 \Delta r \quad .$$

If r_{\oplus} is the earth's radius, then

$$\frac{M_{\oplus} G}{r_{\oplus}^2} = 980 \frac{\text{cm}}{\text{sec}^2}$$

For Lageos

$$\frac{r_{\oplus}}{r} \cong \frac{1}{2} \quad .$$

So

$$\frac{\Delta E}{\Delta t} \cong m(122.5) \frac{\Delta r}{\Delta t} \quad .$$

This gives, for the observed rate of radial decrease (60 cm in 600 days), an orbital energy dissipation rate,

$$\frac{\Delta E}{\Delta t} \cong - 58 \frac{\text{erg}}{\text{sec}}$$

or

$$- 5.8 \mu \text{ watts} \quad .$$

INDUCTIVE DRAG

We first consider effects due to the orbital motion through the magnetic field, ignoring the satellite spin. The effect in this category that seems potentially to be the most important is the so called inductive drag. This force is due to the interaction of the magnetic field with currents induced by the $\vec{v} \times \vec{B}$ force experienced by charges in the conductor as it moves with velocity \vec{v} through the magnetic field \vec{B} .

In an atmosphere free of charged particles this effect would be completely insignificant because the current through the conductor would quickly (in $\sim 10^{-8}$ sec for aluminum) decay as the electric field due to accumulated surface charge cancelled the $\vec{v} \times \vec{B}$ field.

If there are charged particles in the atmosphere there will be a current flow through the satellite and consequently an inductive drag force. Electrons in the atmosphere will be attracted to the positive side of the satellite. Negative charge can be carried away by collisions with positive ions. The low mass ratio

$$\frac{M_{\text{electron}}}{M_{\text{proton}}} \sim \frac{1}{1840}$$

makes the electrons more easily accelerated. The tendency will be for the positively charged surface area to be neutralized, thus leaving a net negative charge on the satellite. In a steady state the neutralization of the positively charged side would have advanced to the point where just as many electrons are still attracted per unit time as there are ions neutralizing surface electrons. The ions are the limiting factor in this steady state current.

Assuming for simplicity that the current density is constant throughout the satellite, then the power loss due to the inductive drag is

$$Fv_{\text{sat}} = jB_z V \frac{v_{\text{sat}}}{c}$$

where V is the satellite volume and B is the component of the magnetic field perpendicular to the direction of motion.

The current density $j = (e) \times (\text{particle flux})$, where e is the electron charge. So, in order of magnitude at least,

$$F_V \cong (5 \times 10^{-10} \text{ esu}) (\text{flux}) (.04) \times 10^5 \frac{5 \times 10^5}{3 \times 10^{10}}$$

$$\cong 3 \times 10^{-11} \times \text{flux (CGS)}$$

So the required flux is on the order of

$$10^{12} \frac{\text{particles}}{\text{sec cm}^2} .$$

This corresponds to a current density $j \cong 1.7 \times 10^{-7}$ amp/cm². Such large fluxes seem ruled out since the total (neutral and charged) particle density is thought to be $< 10^4/\text{cm}^3$.

It is perhaps worth mentioning that within the radiation belts such large particle fluxes can occur. Lageos' orbit may pass through the tail of the outer belt, but whether the charge on the satellite could effectively distribute this high energy flux to bring about large enough internal currents is another question. These high fluxes would only be experienced during a relatively small part of the orbit in any case. The general problem of satellite interaction with high energy charged particles would seem worthy of investigation. Very large electrostatic potentials have been predicted for satellites in the radiation belts (Kurt and Movoz, 1962).

PHOTOEMISSION

We have not yet considered photoemission of electrons. Photoemission provides both a way of carrying off negative charge and a source of electrons that can return to the satellite, thus aiding the internal current flow and contributing to the inductive drag.

Medved (1965), quotes an upper limit of $10^{11}/\text{cm}^2 \text{ sec}$ for the electron flux due to photoemission. Experimental measurements have found values a factor of 3-5 lower. Thus if all the photoelectrons could be utilized all of the time, the resulting inductive drag would be only 5% of the observed anomalous drag. The utilization of photoelectrons must in fact be considerably smaller since the illuminated surface will not necessarily be the optimum choice and because factors such as the magnetic field and satellite spin must also impose some constraints on electron

motion. The effect would disappear during time spent in the earth's shadow.

VARIATION OF EARTH'S MAGNETIC FIELD

There are a number of effects due to the nonuniformity of the earth's magnetic field. However, since the variation of the magnetic field is so small over the dimensions of the satellite, these effects are quite negligible. For completeness, we shall briefly mention the effects considered.

EDDY CURRENTS

First we ignore the satellite spin. As the satellite moves through its orbit the component of the earth's magnetic field perpendicular to the direction of motion oscillates with an angular frequency $\omega \approx 4 \times 10^{-4}$ /sec. There will be eddy currents induced in the satellite due to the slowly changing magnetic flux. The drag force due to these orbital eddy currents is found to be

$$\frac{2\pi a^5 \sigma}{15c^2} \frac{\omega^2}{v_{\text{sat}}} B_0^2 \sin^2 \omega t ,$$

where a is the satellite radius and σ the electrical conductivity. The energy dissipation averaged over one period is

$$\overline{Fv} \approx 1.4 \times 10^{-6} \text{ ergs/sec} ,$$

too small by a factor of 10^7 .

ELECTROSTATIC DIPOLE CHARGE

Neglecting charged atmospheric particles, the induced electrostatic dipole moment of the satellite is

$$p = \frac{vB}{c} a^3 .$$

There is a force on this dipole due to the nonuniform electric field seen in the moving satellite frame due to the spatial variation of \vec{B} .

This force attracts the conductor towards higher B_z^2 :

$$F_x = - \frac{1}{2} \frac{a^3}{c^2} v_{\text{sat}}^2 B_0^2 k \sin(2 kx)$$

$$k = \frac{1}{r_{\text{sat}}} \approx 10^{-9} \text{ cm}^{-1}$$

where $x = r_{\text{sat}} \theta$, the distance along the orbit. This force oscillates as the satellite moves along its orbit, but with

$$|Fv| \cong 10^{-11} \frac{\text{ergs}}{\text{sec}}$$

it is nothing to worry about in any case.

INDUCED ELECTRIC FIELD

The weak induced electric field due to the orbital motion exerts a net force on the surface charge. Integrating over the surface gives

$$F_x = -\pi a^3 \left(\frac{v}{c}\right)^2 \frac{\partial B_z^2}{\partial x}$$

which acts in the direction opposite that of the preceding force (i.e. towards lower B_z^2). It is also oscillatory and of the same order of magnitude and completely negligible.

The interaction of the spin induced eddy currents and the terrestrial magnetic field warrants more consideration.

COUPLING OF SATELLITE SPIN

The case of a conducting sphere rotating in a uniform magnetic field is treated in detail by Landau and Lifshitz (1975). We shall utilize those results in our consideration of rotational effects.

The Lageos satellite is rotating with $\omega \sim 10 \text{ sec}^{-1}$. For aluminum the skin depth

$$\delta = \frac{c}{\sqrt{2\pi\sigma\omega}}$$

is around 7.5 cm at this frequency. Thus $\delta/a \sim .25$, and we cannot justify the use of low frequency ($\delta/a \gg 1$) approximations. The NASA study of eddycurrent despin carried out by Nixon appears to have used the low frequency approximation. It concluded that the satellite's rotation rate should decay exponentially with a time constant of around 3 months.

More applicable is the high frequency approximation. In the limit $\delta/a \ll 1$ we obtain the following expression for a sphere rotating with its axis of rotation perpendicular to the magnetic field.

$$\dot{\omega} = \frac{45cB_0^2}{\rho m 8\pi a^3} \frac{1}{\sqrt{2\pi\sigma}} \frac{1}{\sqrt{\omega}} = - \frac{A}{\sqrt{\omega}}$$

with solution

$$\omega(t) = (\omega_0^{3/2} - \frac{3}{2} At)^{3/2}$$

during the period of time for which the high frequency approximation is applicable. This decay is much slower than the exponential decay predicted. Below are tabulated the results of both a numerical integration of the exact equation and the solution of the approximate equation for high frequency.

<u>t</u>	<u>ω exact sec⁻¹</u>	<u>ω approx sec⁻¹</u>
0	10.00	10.00
8.7 mos	9.26	9.01
17.4 mos	8.50	7.97
29.0 mos	7.45	6.45

Thus the spin rate drops off only 25% in almost 2 1/2 years and is still decreasing linearly in time. These calculations were done using the maximum value of the magnetic field perpendicular to the satellite velocity ($B \sim .07G$). A lower value of B would increase the time scale in inverse proportion. Thus it is not surprising that Lageos is still spinning.

A conducting sphere rotating in a magnetic field has a magnetic moment (μ) due to the eddy currents induced by its rotation. Even in a uniform field there will be a torque $\vec{N} = \vec{\mu} \times \vec{B}$. We have already calculated the results of this torque for the case where the spin axis is perpendicular to the magnetic field. If the magnetic field varies with x then there is a force in the x direction given by

$$F_x = \vec{\mu} \cdot \frac{d\vec{B}}{dx}$$

Applying the results of Landau and Lifshitz to the coordinate system in which $\vec{B} = (B_x, 0, B_z)$ (transforming their results which are for a system with one axis along $\vec{\Omega}$ (the axis of rotation) and another along $(\vec{B} - (\vec{B} \cdot \vec{\Omega})\vec{\Omega})$) we obtain

$$F_x = V [(A_{21}^2 \alpha' + A_{21} A_{31} \alpha'') B_x \frac{dB_x}{dx} + (A_{21} A_{23} \alpha' + A_{21} A_{33} \alpha'') B_x \frac{dB_z}{dx} + (A_{23} A_{21} \alpha' + A_{23} A_{31} \alpha'') B_z \frac{dB_x}{dx} + (A_{23}^2 \alpha'' + A_{23} A_{33} \alpha'') B_z \frac{dB_z}{dx}]$$

for arbitrary $\vec{\Omega}$, where V is the volume of the sphere and $\alpha = \alpha' + i\alpha''$ is the complex magnetic polarizability of the sphere (a function of Ω , σ , and α). The A_{ij} are direction cosines defined by

$$A_{i1} = \frac{\Omega_i}{\Omega}$$

$$A_{i3} = \frac{(\vec{\Omega} \times \vec{B})_i}{|\vec{\Omega} \times \vec{B}|}$$

We could integrate the system of equations for $\vec{\Omega}$ and \vec{P} to follow the time evolution of the system. However, let us first see how large these force terms are to decide if it would be worth the effort,

$$B_x = B_0 \cos(kx), \quad k \cong 10^{-9} \text{ cm}^{-1}, \quad B_0 \sim 7.5 \times 10^{-2} \text{ G}.$$

In the high frequency approximation, which gave fairly good results in the despin calculation,

$$\alpha'' = \frac{a}{16\pi} \frac{\delta}{a} \cong .045$$

$$\alpha = -\frac{3}{8\pi} [1 - \frac{3\delta}{a}] \cong .075$$

A typical term will be

$$V A_{21}^2 \alpha' B_x \frac{dB_x}{dx} = A_{21}^2 (.075) (5.6 \times 10^{-3}) \times 10^{-9} V \sin kx \cos kx$$

$$A_{21}^2 \leq 1, \quad V \cong 10^5 \text{ cm}^3$$

$$F_x \sim A_{21}^2 (2.3 \times 10^{-8}) \sin 2kx$$

$$F_v \sim A_{21}^2 (0.0115) \sin(2kx) \text{ ergs/sec}.$$

Even ignoring the approximately periodic behavior (assuming $\frac{\Omega_y}{\Omega} \frac{dB_x}{B_z} \approx 0$ is fairly constant over a period) which would make $\frac{\Omega_y}{\Omega} \frac{dB_x}{B_z} \approx 0$, the term is seen to be too small by at least a factor of 5000.

The mixed terms containing

$$B_z \frac{dB_x}{dx}$$

and

$$B_x \frac{dB_z}{dx} ,$$

while not averaging to zero, are of the same order of magnitude.

Given the extremely small magnitudes of all the electromagnetic effects we have considered it would not appear worthwhile to attempt more detailed or realistic calculations. The weak magnetic field and small gradient insure that these effects are much smaller than other dissipative terms such as atmospheric drag.

NEUTRAL ATMOSPHERIC DRAG

It is difficult to estimate the drag due to collisions with neutral atmospheric particles for a number of reasons. First of all, we have no reliable measurements of the mass density, and the Jacchia model cannot reasonably be extrapolated out this far (Jacchia, 1980). Furthermore, since the mean free path is measured in millions of kilometers (assuming $N \approx 10^4/\text{cm}^3$), the bulk of the neutral particles are "hot" particles in orbit about the earth and do not constitute a Maxwellian distribution. Our ignorance of these orbits and the corresponding velocity distribution encountered by the satellite make accurate estimates of atmospheric drag impossible. The drag coefficient rises dramatically as the thermal velocity of atmospheric particles becomes comparable to the satellite velocity (Schamberg, 1959) for a satellite moving through a medium in thermal equilibrium. We might expect an enhancement in the atmospheric drag due to the high orbital velocities of the colliding particles. It is not clear, however, that the concept of a more or less constant drag coefficient makes sense for the Lageos orbit.

CHARGE DRAG (COULOMB SCATTERING)

Numerous articles are to be found in the literature on charge drag, the drag force due to the interaction of the charged particles in the atmosphere and a net charge on the satellite. There has not been universal agreement on the significance of these forces because of the various ways that factors such as shielding due to sheath formation have been treated. However, all of the studies seem to have explicitly assumed that the velocity of the satellite is much greater than the ion velocities so that ion motion can be ignored. This assumption is invalid for Lageos' orbit. Brundin (1963) in his review article makes a point of excluding the hydrogen region (which Lageos is presumably in) from the realm of applicability of these studies. In the studies that are applicable to lower altitudes there was general agreement that the largest enhancement to the drag force on a negatively charged satellite came from increased direct impingement of positive ions, with momentum transfer due to scattering of ions and electrons without direct contact being a secondary effect.

The charge drag clearly must depend on the magnitude and sign of the satellite potential. The largest measured potentials that we are aware of are only a few negative volts with potentials of less than a volt being the rule. For lower altitudes the higher thermal velocities and greater mobility of electrons relative to ions tend to give satellites a negative charge since the density of electrons is sufficient to make collision charging predominate over positive charging effects such as secondary emission and photoemission of electrons. For the sparse atmosphere of Lageos, however, we may expect that during sunlit periods photoemission will give the satellite a positive potential. Since this would decrease rather than increase the number of direct collisions with ions, we might expect on the basis of the earlier results that the drag force on a positively charged satellite would be less than that on a negatively charged one. It has already been noted that radiation belt particles might cause high potentials during part of the orbit.

In summary, the problem of charge drag on Lageos is not one whose solution can be obtained by applying a well established theory, even if sufficient data were available.

There is evidence that charge drag may be important, however. The recently observed acceleration of the secular decrease in the semimajor axis of Lageos occurs during a period of increased solar activity. Since solar activity has the effect of decreasing the particle density while increasing the ionization level, the observed increase in the orbital decay points to a drag force that is more dependent on charged particles than on neutral ones.

CONCLUSIONS

Dissipative effects due to interaction with the terrestrial magnetic field seem clearly ruled out as significant contributors to the Lageos anomalous orbital energy dissipation.

This leaves neutral and charged collisional drag as the likely causes of orbital decay. Since the particles encountered may have large velocities depending on their orbits, it is plausible that a small mass density could have a much larger effect than an extrapolation of calculations applicable to lower altitudes would indicate.

Finally, the accelerated orbital decay in the presence of increased solar activity indicate that charge drag may be especially important. Induction drag may also play a more important role than we have estimated.

4. MERIT

Project MERIT was conceived in 1978 at IAU Symposium No. 82 on Time and the Earth's Rotation and is sponsored by the International Astronomical Union (IAU) and the International Union of Geodesy and Geophysics (IUGG). This special period of international collaboration in the monitoring of earth-rotation and in the intercomparison of the techniques of observation and analysis has the following objectives: (1) to foster the development of new techniques for the measurement of the variations in the rate and axis of rotation of the earth, (2) to obtain precise data on earth rotation in order to increase our understanding of the causes and effects of the variations, and (3) to make recommendations on the observational basis and organizational arrangements for future international services on earth rotation.

The proposed program of activities includes initial short periods of observation (e.g. during August, September, and October 1980) to test the techniques and improve the arrangements for international cooperation, a later common period (at least a year 1983/84) of regular observation by all suitable techniques, and periods of planning, data analysis, and review. The IAU has requested the support of observatories, data analysis centers, and international organizations in order to ensure that project MERIT provides useful scientific results and a sound basis for the future development of the international services on earth rotation.

The short MERIT campaign in 1980 had polar motion and earth rotation measured by a number of techniques: classical astronomical techniques, doppler tracking of satellites, laser ranging to satellites and the moon, connected element radio interferometry, and very long baseline interferometry. Each of these techniques will be used to determine polar motion, UT1, and length of day (LOD). One aspect of MERIT concerns quick determination of these earth rotation parameters, i.e. a rapid service. The immediate results will of course not be as accurate as those obtained from a more complete and detailed analysis of the final data.

SAO planned to calculate a rapid service for polar motion and LOD based on the quick look data. Quick-look data are sent daily to SAO for use in calculating prediction orbits. These data will not necessarily have all the measurement corrections and refinements made, or be validated, however, some scientific results are expected from this quick look data.

Actually SAO has participated in the MERIT campaign in two ways. First, as a data center SAO has provided predictions and status reports, and collected observations for the satellite tracking laser systems. Second, as an analysis center SAO has

used the quick-look data received each week to calculate the position of the earth's pole and the LOD. These data are supplied weekly to the Central Coordinating Center at the Bureau International de l'Heure (BIH). At present, SAO is the only new group to provide these data routinely in an operational way.

3.1 Establishment of the SAO Polar Motion Service

The SAO Polar Motion Service which is based on the use of quick-look data, was established by a number of steps, and is worth a brief description. Any organization setting out to provide such a service based on observational data must essentially accomplish these steps.

The requirements for a routine quick service follow:

The capabilities to determine polar motion and LOD and to edit bad data. Here, an accurate orbit determination program was needed; the development and testing of this program has been described in Gaposchkin (1974, 1978, 1980a,b).

A reference system which requires, in practical terms, a set of station coordinates that are accurate and uniform.

A procedure to obtain and process data on a sufficiently rapid schedule to qualify as a quick service.

A procedure that can run open loop, i.e., that gives earth rotation data for any date without knowing the results for subsequent dates. Of course, the previous data could be used if necessary.

A procedure for the system to evolve as the complement of stations changes. New stations must be defined in the reference system as they come on line.

Establishing the reference system or list of station coordinates was done in two steps. Because no single set of coordinates was available that contained all the stations participating in MERIT, a set of coordinates was sought by combining several independent sets. It turned out that the set found in this way was not adequate for the task; further refinements were required. The refinements were made by use of the procedure for bringing new stations into the network. In other words, some stations needed to be treated as completely new sites. The details of the initial attempt at synthesizing a set of coordinates is given here for two reasons: First, it did produce a consistent set of coordinates for a global set of stations. Although most of these stations did not contribute laser ranging data on Lageos for the MERIT campaign, some stations have made observations on other satellites, e.g. doppler and laser observations to lower satellites, and can be

used by other investigators for determination of polar motion. In this case, the coordinates given here are in the SAO system, and therefore allow the relation between the SAO system and another system to be found. Secondly, this set of coordinates may be the best global set to start further analysis, since it is the result of an attempt to put all the stations on a common "datum."

There are basically two factors in selecting a set of fundamental station coordinates. First, the coordinates should have the highest internal accuracy, i.e., the relative position should be known with the highest possible accuracy. Second, the coordinates should be referred to a well-defined coordinate system. There are many sets of station coordinates to choose from, including datum coordinates and individual solutions based on analysis of satellite tracking data by many investigators. Each set of coordinates can be internally consistent and of high accuracy; however, no set of coordinates includes all the stations of interest. Furthermore, the relationship between the various sets of coordinates is, in general, unknown in terms of origin, orientation, and scale. To make the best use of extensive calculations by other groups, the following process is carried out.

A number of station coordinate sets are selected (Table 3). Each set is assumed to be internally consistent and of a certain accuracy. In some cases, the accuracy of each station is given by the author. In other cases, an overall accuracy has been adopted. The relationship between these nine systems of coordinates was calculated using the common stations. The result of a least-squares adjustment for the transformation, scale, and rotation parameters and the formal uncertainty is given in Table 4. Any set of coordinates could be taken as the reference or origin for the calculation, and the GEM10 set was chosen because it contained the largest number of common stations. The solution had 56 unknowns with 822 observation equations. The standard error of unit weight came to 1.8, which indicated that the assumed accuracy of at least some of the coordinates was somewhat optimistic.

Table 3. Station coordinates

Name	Source	Accuracy(m)	Number of Stations
GSFC80	Smith, 1980	0.30	18
SEASAT	Marsh <u>et al.</u> , 1978	0.40 Laser	18
		1.40 S-Band	11
LAGEOS	Smith, 1978	0.40	8
Geos 3	Marsh <u>et al.</u> , 1978	0.50	8
GEM10	Lerch <u>et al.</u>	4.00	150
SE3	Gaposchkin, 1974	As given	106
NWL9D	Anderle, 1974	2.00	40
NA27	Various	1.00	142
EU50	Various	1.00	79

This least squares calculation allows for the evaluation of individual coordinates that enter the solution. The postadjustment residuals are examined for large residuals. In the case where three or more estimates are available for a given station, it is possible to identify the offending coordinates. Otherwise, the site must be eliminated from the network. The rejected coordinates are given in Table 5. The solution in Table 4 is made after these coordinates are eliminated.

The transformation parameters were then used to express each set of coordinates in the same system. One can arbitrarily choose a reference system. In this case, the system defined by the Lageos coordinates (see Table 3) was chosen in order to retain compatibility of orbital elements with those previously computed. The Lageos coordinates have been used at SAO since 1978. In the future, new sets of coordinates will be transformed to the Lageos system in the same way. In this way, one can profit from new more accurate analysis while preserving the reference system and the usefulness of previous calculations. So, for example, the coordinates are defined to be in the "Lageos" system. However, the fundamental coordinates used are taken from the GSFC80 set and transformed to the Lageos system, when possible.

The transformation parameters allow several estimates for the coordinates of the common stations. Therefore, the sets of coordinates are arranged in the hierarchy given in Table 1. The adopted coordinates for a particular station are taken from the highest level that a station occurs in the hierarchy. In this way, a complete set of coordinates, in a well defined coordinate system, with the highest internal accuracy is obtained. The complete list of coordinates defined in this way is given in Table 6.

Table 4.
Transformation Parameters

SIGMA =	0.1793E-05	NOB =	822	TRANSFORMATION PARAMETERS IN (METERS, PPM MICRORADIANS)						
				DX	DY	DZ	S	EX	EY	EZ
TRANSFORMATION FROM GSFC80				1.843	-0.620	-1.563	0.011	0.106	-0.145	-1.258
				0.731	0.710	0.785	0.103	0.131	0.136	0.129
TRANSFORMATION FROM GEOS3				1.901	0.309	1.478	0.143	-0.240	-0.209	-1.409
				0.731	0.722	0.810	0.105	0.133	0.144	0.129
TRANSFORMATION FROM LAGEOS				1.862	-0.697	-1.340	-0.031	0.033	-0.028	-1.294
				0.753	0.726	0.809	0.106	0.136	0.139	0.134
TRANSFORMATION FROM SEASAT				1.876	-0.427	-0.470	-0.023	0.028	0.048	-1.553
				0.697	0.683	0.755	0.099	0.125	0.134	0.123
TRANSFORMATION FROM SE3 CO				5.047	2.763	12.352	-0.314	-0.326	0.002	-3.444
				0.939	0.936	0.989	0.141	0.171	0.194	0.165
TRANSFORMATION FROM NWL9D				2.415	1.644	1.820	0.091	-0.217	0.334	-4.427
				1.633	1.641	1.584	0.243	0.299	0.306	0.292
TRANSFORMATION FROM NA27				-26.994	167.223	183.963	0.971	-1.223	0.102	-4.427
				1.435	2.319	2.824	0.208	0.550	0.235	0.224
TRANSFORMATION FROM EU50				-94.297	-121.220	-122.076	1.758	3.761	-1.244	-2.277
				3.868	2.914	3.761	0.403	0.469	0.727	0.489

Table 5.
Coordinates deleted from solutions.

Station No.	Station Name	Coordinate System
7842	GRASSE	GEM10 or EU50
7820	DAKAR	EU50
1314	TEX3	NA27
7067	BERMUDA	NA27
7068	GRAND TURK	NA27
1328	ULA3	NA27 or SEASAT
1330	MAD3	EU50 or SEASAT
2018	THULE	NA27
2739	SHEMYA	NA27
4082	ETRMRT	NA27 or GEM10
4840	NWAL49	NA27 or GEM10
4860	NWAL13	NA27 or GEM10
7052	WALLOPS	NA27 or GEM10
7901	ORPASS	GEM10
8011	MALVERN	EU50 or GEM10
8009	DELFT	EU50 or GEM10
7834	WETTZELL	GSFC80

Table 6. Unified station coordinates referred to Lageos system

Station Number	X(Mm)	Y(Mm)	Z(Mm)	σ (rad)	λ (rad)		
7061	-2.42883061	-4.79975260	3.41727486	0.5689901	4.2439271	510.0	LAGEOS S
7063	1.13071224	-4.83137179	3.99408944	0.6810341	4.9422866	510.0	LAGEOS S
7064	1.13068671	-4.83134598	3.99417546	0.6810415	4.9422828	510.0	LAGEOS S
7065	1.13068876	-4.83135507	3.99411398	0.6810392	4.9422828	510.0	LAGEOS S
7100	1.13135306	-4.83117270	3.99413411	0.6810443	4.9424215	510.0	LAGEOS S
7067	2.30853690	-4.87408517	3.39363093	0.5646806	5.1547229	510.0	LAGEOS S
7068	1.92049003	-5.61948371	2.31891571	0.3745564	5.0416987	510.0	LAGEOS S
7082	-1.73600088	-4.42505104	4.24143335	0.7318790	4.3385276	510.0	LAGEOS S
7084	-2.41059477	-4.47774676	3.83865104	0.6498231	4.2165341	510.0	LAGEOS S
7085	-2.35339690	-4.64153101	3.67690167	0.6182730	4.2431326	510.0	LAGEOS S
7091	1.492745190	-4.45728279	4.29681839	0.7439063	5.0354899	510.0	LAGEOS S
7833	3.89927375	-0.39674106	5.01507459	0.9106852	0.1013997	510.0	LAGEOS S
7907	1.94278738	-5.80407905	-1.79692002	-0.2873815	5.0353942	510.0	LAGEOS S
7921	-1.93676356	-5.07770603	3.33192293	0.5529941	4.3479974	510.0	LAGEOS S
7929	5.18646555	-3.65386029	-0.65437249	-0.1034598	5.6694462	510.0	LAGEOS S
7943	-4.44754742	2.67713757	-3.69499762	-0.6217725	2.5997510	510.0	LAGEOS S
7069	0.91795555	-5.54837533	2.99877821	0.4926707	4.8763493	510.0	LAGEOS S
7081	0.91789701	-5.54837950	2.99877893	0.4926712	4.8763389	510.0	LAGEOS S
7819	5.44049183	-1.50167841	2.96125702	0.4859644	6.0138718	510.0	LAGEOS S
7902	5.05612654	-2.71652412	-2.7756238	-0.4530869	0.4930198	510.0	LAGEOS S
7906	1.94278961	-5.80408390	-1.79692150	-0.2873817	5.0353940	510.0	LAGEOS S
7940	4.59521778	2.03946485	3.91261609	0.6645938	0.4177052	510.0	LAGEOS S
1303	2.30844970	-4.87430074	3.39339449	0.5646360	5.1546909	510.0	LAGEOS S
1353	1.26345945	-6.25503222	-0.06880693	-0.0108548	4.9116978	510.0	LAGEOS S
1311	-5.54384575	-2.05455951	2.38761432	0.3861766	3.4965016	510.0	LAGEOS S
1317	-2.35471285	-4.64680563	3.66938309	0.6168262	4.2433653	510.0	LAGEOS S
1328	-2.28749272	-1.45338117	5.75670983	1.1339755	3.7085979	510.0	LAGEOS S
1330	4.84782664	-0.35332547	4.11713942	0.7060805	6.2104304	510.0	LAGEOS S
1312	-2.35476390	-4.64678757	3.66938637	0.6168260	4.2433550	510.0	LAGEOS S
1326	0.64720224	-5.17832577	3.65613857	0.6142853	4.8367269	510.0	LAGEOS S
1320	-4.44749026	2.67686624	-3.69526447	-0.6218240	2.5997899	510.0	LAGEOS S
1316	0.90707798	-5.53524044	3.02604522	0.4975512	4.8748183	510.0	LAGEOS S
1301	0.90707550	-5.53521318	3.02604713	0.4975605	4.8748186	510.0	LAGEOS S
7801	4.72830440	2.87964960	3.15666210	0.5211574	0.5470363	510.0	LAGEOS S
7811	3.73848600	1.14828000	5.02169200	0.9123747	0.2980045	510.0	LAGEOS S
7834	4.07553380	0.93177839	4.86162183	0.8577555	0.2247610	510.0	LAGEOS S
1021	1.11803773	-4.87631322	3.94297112	0.6707388	4.9377744	510.0	LAGEOS S
1022	0.80767058	-5.65197977	2.83350863	0.4633521	4.8543648	510.0	LAGEOS S
1024	-3.97727597	3.72565455	-3.30297904	-0.5478637	2.3888497	510.0	LAGEOS S
1028	1.76971863	-5.04461423	-3.46825466	-0.5785691	5.0497899	510.0	LAGEOS S
1030	-2.35723566	-4.64632772	3.66831735	0.6166245	4.2428938	510.0	LAGEOS S
1031	5.08479472	2.67040800	-2.76813989	-0.4517535	0.4835853	510.0	LAGEOS S
1032	2.60276495	-3.41914544	4.69765483	0.8332463	5.3630419	510.0	LAGEOS S
1033	-2.29925295	-1.44569755	5.75181828	1.1322255	3.7028991	510.0	LAGEOS S
1034	-0.52169730	-4.24204661	4.71873044	0.8381523	4.5900228	510.0	LAGEOS S
1035	3.96311852	-0.04849578	4.96472107	0.6979036	6.2710117	510.0	LAGEOS S
1036	-2.28235228	-1.45263619	5.75690642	1.1340622	3.7083955	510.0	LAGEOS S
1037	0.64753190	-5.17792783	3.65671142	0.6143909	4.8368010	510.0	LAGEOS S
1038	-4.44748502	2.67717083	-3.69505409	-0.6217833	2.5997406	510.0	LAGEOS S
1042	0.64752582	-5.17792831	3.65670991	0.6143907	4.8367998	510.0	LAGEOS S
1043	4.09167205	4.43429015	-2.06472647	-0.3317675	0.8255391	510.0	LAGEOS S
1122	1.09133306	4.43422304	-2.06597585	-0.3319753	0.8255966	510.0	LAGEOS S
1123	4.09134645	4.43421822	-2.06596315	-0.3319731	0.8255944	510.0	LAGEOS S
1126	0.64719997	-5.17832763	3.65614530	0.6142859	4.8367283	510.0	LAGEOS S
1128	-2.26749427	-1.45337948	5.75671646	1.1339760	3.7085991	510.0	LAGEOS S
1152	-2.32823028	5.29970584	-2.66932292	-0.4346382	1.9847286	510.0	LAGEOS S
1305	5.43914753	-1.52710259	2.95351970	0.4845796	6.0103243	510.0	LAGEOS S
1308	-2.32899829	5.29919295	-2.66908951	-0.4346998	1.9848858	510.0	LAGEOS S
1314	-0.72552487	-5.60680050	2.94267011	0.4826695	4.5837048	510.0	LAGEOS S
1307	4.84781777	-0.35331536	4.11714475	0.7060818	6.2092216	510.0	LAGEOS S
1309	-5.06892219	3.58410399	1.45809984	0.2323137	2.5261359	510.0	LAGEOS S

Table 6. (Cont.)

1310	-4.45106962	2.67681554	-3.69135358	-0.6210457	2.6001552	510.0	LAGEOS S
1306	6.12123111	-1.56337046	-0.87690623	-0.1388376	6.0331308	510.0	LAGEOS S
1315	1.12979089	-4.83314572	3.99227810	0.6806539	4.9420251	510.0	LAGEOS S
1316	1.12986611	-4.83314716	3.99219524	0.6806504	4.9420408	510.0	LAGEOS S
2001	1.12254870	-4.82307322	4.00648551	0.6835314	4.9410650	510.0	LAGEOS S
2003	-1.55597959	-5.16934173	3.38749512	0.5634193	4.4200153	510.0	LAGEOS S
2008	4.08390050	-4.70978863	-2.49913046	-0.4052253	5.4826110	510.0	LAGEOS S
2013	-3.77964711	3.02471534	4.13899198	0.7107083	2.4666919	510.0	LAGEOS S
2014	-2.65617559	-1.54436929	5.57064764	1.0695962	3.6687445	510.0	LAGEOS S
2017	-6.10001508	-0.99718828	-1.56845799	-0.2501163	3.3036339	510.0	LAGEOS S
2018	0.53939280	-1.38837604	6.18105687	1.3359553	5.0829498	510.0	LAGEOS S
2019	-1.31071423	0.31047479	-6.21336610	-1.3586985	2.9090067	510.0	LAGEOS S
2092	-0.74162427	-5.46220689	3.19813661	0.5286381	4.5774421	510.0	LAGEOS S
2100	-5.50414725	-2.22414261	2.32529995	0.3756113	3.5256170	510.0	LAGEOS S
2103	-1.55620940	-5.16943496	3.38750005	0.5633736	4.4199795	510.0	LAGEOS S
2106	4.00543941	-0.07175253	4.94671266	0.6933620	6.2652746	510.0	LAGEOS S
2111	1.12265159	-4.82303672	4.00646899	0.6835304	4.9410869	510.0	LAGEOS S
2112	-3.94223611	3.46886673	-3.60819827	-0.6051748	2.4199820	510.0	LAGEOS S
2115	5.05197985	7.72564112	-2.77445537	-0.4528556	0.4947621	510.0	LAGEOS S
2117	-6.10001920	-0.99718723	-1.56846109	-0.2501166	3.3036336	510.0	LAGEOS S
2121	-3.06805572	5.33306423	1.63862438	0.2615880	2.0956623	510.0	LAGEOS S
2203	1.26168582	-4.88124067	3.89355790	0.6608582	4.9653311	510.0	LAGEOS S
2706	-6.30336325	-0.92345009	-0.30873106	-0.0487496	3.2870605	510.0	LAGEOS S
2717	3.60787831	5.23822763	-0.51591895	-0.0915154	0.9683030	510.0	LAGEOS S
2722	6.11843255	-1.57155935	-0.87844592	-0.1390931	6.0317652	510.0	LAGEOS S
2723	-0.74196466	6.19080546	-1.33857831	-0.2128571	1.6900779	510.0	LAGEOS S
2738	-2.12781384	-3.78583330	4.65605436	0.8735410	4.2003459	510.0	LAGEOS S
2739	-3.85151631	0.39726049	5.05146859	0.9200589	3.0388136	510.0	LAGEOS S
2742	1.13078598	-4.83081983	3.99472059	0.6811625	4.9423281	510.0	LAGEOS S
2745	-0.08498729	-5.32795919	3.49345589	0.5833858	4.6964408	510.0	LAGEOS S
2809	-4.31378661	0.89305300	-4.59695750	-0.8100449	2.9374548	510.0	LAGEOS S
2815	3.62330759	-5.21421088	0.60153011	0.0950870	5.3196792	510.0	LAGEOS S
2817	2.60436015	4.44416374	3.75033695	0.6325181	1.0407220	510.0	LAGEOS S
2822	6.02341853	1.61793711	1.33171188	0.2117370	0.2624149	510.0	LAGEOS S
2837	5.18637170	-3.65421893	-0.65303214	-0.1032554	5.6693928	510.0	LAGEOS S
2911	1.12271140	-4.82303346	4.00647654	0.6835305	4.9410989	510.0	LAGEOS S
4050	5.05160140	7.72661416	-2.77413712	-0.4528016	0.4949426	510.0	LAGEOS S
4082	0.91053756	-5.53909647	3.01798513	0.4961076	4.8753173	510.0	LAGEOS S
4740	2.30886769	-4.87429502	3.39310131	0.5645822	5.1547633	510.0	LAGEOS S
4760	2.30886330	-4.87429615	3.39310883	0.5645833	5.1547625	510.0	LAGEOS S
4840	1.26394223	-4.88226373	3.89154933	0.6604587	4.9657135	510.0	LAGEOS S
4860	1.26155365	-4.88154504	3.89321244	0.6607901	4.9652906	510.0	LAGEOS S
4946	-3.99899607	3.75032111	-3.24863275	-0.5378781	2.3882746	510.0	LAGEOS S
7034	-0.52169428	-4.24204650	4.71872724	0.8381520	4.5900235	510.0	LAGEOS S
7036	-0.82848034	-5.65745337	2.81682039	0.4604113	4.5669636	510.0	LAGEOS S
7037	-0.19127755	-4.96727673	3.98326468	0.6788173	4.6739022	510.0	LAGEOS S
7039	2.30622920	-4.87359647	3.39457535	0.5648544	5.1547117	510.0	LAGEOS S
7040	2.46506747	-5.53491780	1.96552427	0.3186617	5.1313846	510.0	LAGEOS S
7043	1.13072441	-4.83132327	3.99414134	0.6810446	4.9422929	510.0	LAGEOS S
7045	-1.24046516	-4.76022716	4.04898857	0.6919648	4.4574705	510.0	LAGEOS S
7050	1.13068960	-4.83136025	3.99410622	0.6810375	4.9422844	510.0	LAGEOS S
7051	0.64720307	-5.17830798	3.65619090	0.6142935	4.8367294	510.0	LAGEOS S
7052	1.26154843	-4.88159027	3.89317310	0.6607811	4.9652874	510.0	LAGEOS S
7053	1.13069019	-4.83133457	3.99414914	0.6810452	4.9422857	510.0	LAGEOS S
7054	-2.32818229	5.29967160	-2.66946291	-0.4346602	1.9847234	510.0	LAGEOS S
7060	-5.06896862	3.58408831	1.45876787	0.2322924	2.5261423	510.0	LAGEOS S
7071	0.97628460	-5.60140330	2.88023196	0.4715960	4.8849501	510.0	LAGEOS S
7072	0.97628314	-5.60139202	2.88024675	0.4715989	4.8849501	510.0	LAGEOS S
7073	0.97630587	-5.60137115	2.88024977	0.4716001	4.8849545	510.0	LAGEOS S
7074	0.97630328	-5.60138071	2.88026147	0.4716011	4.8849538	510.0	LAGEOS S
7075	0.69262695	-4.34706588	4.60048822	0.8108085	4.8703951	510.0	LAGEOS S

Table 6. (Cont.)

7076	1.38417126	-5.90506547	1.96654763	0.3154904	4.9426151	510.0	LAGEOS S
7077	1.13006960	-4.83303695	3.99226211	0.6806645	4.9420857	510.0	LAGEOS S
7078	1.26160384	-4.86134642	3.89344625	0.6608365	4.9653101	510.0	LAGEOS S
7079	-2.32860289	5.29935071	-2.66967880	-0.4346493	1.9848123	510.0	LAGEOS S
7809	4.57835441	0.45798607	4.40317439	0.7667640	0.0997024	510.0	LAGEOS S
7820	5.88627419	-1.84505336	1.61524478	0.2517403	5.9793436	510.0	LAGEOS S
7842	4.58705046	0.55472983	4.38915443	0.7636198	0.1204806	510.0	LAGEOS S
7930	4.59522290	2.03946030	3.91261465	0.6645931	0.4177053	510.0	LAGEOS S
8009	3.92341066	0.29990169	5.00293137	0.9075961	0.0762918	510.0	LAGEOS S
8010	4.33131306	0.56752651	4.63309930	0.8181542	0.1302881	510.0	LAGEOS S
8011	3.92019456	-0.13472827	5.01276501	0.9100718	6.2488323	510.0	LAGEOS S
8015	4.57833911	0.45798651	4.40318467	0.7667669	0.0997028	510.0	LAGEOS S
8019	4.57948423	0.58662609	4.38641273	0.7631570	0.1274064	510.0	LAGEOS S
8030	4.20563395	0.16374140	4.77651280	0.6518241	0.0389153	510.0	LAGEOS S
9001	-1.53574450	-5.10700010	3.40104695	0.5658979	4.4234847	510.0	LAGEOS S
9002	5.05612737	2.71652075	-2.71576659	-0.4530876	0.4930205	510.0	LAGEOS S
9003	-3.98379295	3.74309687	-3.27553284	-0.5428075	2.3873360	510.0	LAGEOS S
9004	5.10559629	-0.55521787	3.76967339	0.6363982	6.1748653	510.0	LAGEOS S
9005	-3.94670463	3.36628347	3.69883643	0.6226112	2.4353980	510.0	LAGEOS S
9006	1.01819443	5.47111108	3.10962594	0.5124216	1.3867984	510.0	LAGEOS S
9007	1.94278771	-5.80408251	-1.79692215	-0.2873819	5.0353956	510.0	LAGEOS S
9008	3.37687944	4.40400079	3.13626887	0.5172660	0.9166461	510.0	LAGEOS S
9009	2.25183850	-5.81691331	1.32716874	0.2110152	5.0817436	510.0	LAGEOS S
9010	0.97629806	-5.60139633	2.88024187	0.4715976	4.8849525	510.0	LAGEOS S
9011	2.28059011	-4.91457737	-3.35540565	-0.5575102	5.1468635	510.0	LAGEOS S
9012	-5.46605316	-2.40430017	2.24218353	0.3614089	3.5559841	510.0	LAGEOS S
9027	-1.93676711	-5.07771209	3.33191842	0.5529928	4.3479989	510.0	LAGEOS S
9023	-3.97778408	3.72510675	-3.30300583	-0.5478676	2.3889868	510.0	LAGEOS S
9025	-3.91044982	3.37635772	3.72921974	0.6284148	2.4293605	510.0	LAGEOS S
9026	4.90375640	3.96522488	0.96386336	0.1526727	0.6799698	510.0	LAGEOS S
9031	1.69380448	-4.11233626	-4.55664515	-0.8008759	5.1030994	510.0	LAGEOS S
9049	0.97629686	-5.60141170	2.88025014	0.4715978	4.8849519	510.0	LAGEOS S
9050	1.46974925	-4.46748029	4.26730773	0.7418687	5.0342599	510.0	LAGEOS S
9051	4.60687320	2.02975190	3.90355474	0.6628193	0.4150039	510.0	LAGEOS S
9080	3.92017071	-0.13472615	5.01274567	0.9100729	6.2488321	510.0	LAGEOS S
9091	4.59516901	2.03947631	3.91266447	0.6646034	0.4177130	510.0	LAGEOS S
9424	-1.26483151	-3.46668661	5.18546572	0.9554417	4.3625641	510.0	LAGEOS S
9415	-2.45000392	-4.62442518	3.63503670	0.6102381	4.2251910	510.0	LAGEOS S
9416	3.12128057	0.59265257	5.51272963	1.0508776	0.1876421	510.0	LAGEOS S
9417	-6.00741104	-1.11186161	1.82575128	0.2922409	3.3246080	510.0	LAGEOS S
9912	5.05612483	2.71652643	-2.77576247	-0.4530870	0.4930216	510.0	LAGEOS S
9107	1.94278931	-5.80408411	-1.79692233	-0.2873818	5.0353957	510.0	LAGEOS S
9121	-1.93676527	-5.07770766	3.33192371	0.5529939	4.3479989	510.0	LAGEOS S
9129	5.18646746	-3.65365943	-0.65432215	-0.1034600	5.6694478	510.0	LAGEOS S
9140	4.59521585	2.03945968	3.91261881	0.6645943	0.4177058	510.0	LAGEOS S
1111	-2.35143336	-4.64507220	3.67377089	0.6176630	4.2437744	510.0	LAGEOS S
1112	-2.35044684	-4.65197146	3.66563561	0.6160995	4.2445412	510.0	LAGEOS S
1114	-2.35362554	-4.64133480	3.67705921	0.6182980	4.2430742	510.0	LAGEOS S
1741	-3.97870569	3.72485371	-3.30219225	-0.5477190	2.3891340	510.0	LAGEOS S
1742	-4.46096811	2.68242280	-3.67459623	-0.6178629	2.6002097	510.0	LAGEOS S
1751	5.08544357	2.66826484	-2.76871049	-0.4518657	0.4831988	510.0	LAGEOS S
1761	4.84924356	-0.36028465	4.11487983	0.7056128	6.2090219	510.0	LAGEOS S
1762	4.84670116	-0.37020236	4.11690303	0.7060373	6.2069484	510.0	LAGEOS S
6002	1.13078194	-4.83083016	3.99471106	0.6811590	4.9423224	510.0	LAGEOS S
6003	-2.12781329	-3.76564911	4.65603884	0.8735362	4.2003435	510.0	LAGEOS S
6004	-3.85176661	0.39642374	5.05134768	0.9200254	3.0390321	510.0	LAGEOS S
6006	2.10294904	0.72168473	5.95818882	1.2158372	0.3305817	510.0	LAGEOS S
6007	4.43366128	-2.26812647	3.97165287	0.6764892	5.8103217	510.0	LAGEOS S
6008	3.62326697	-5.21421657	0.60152914	0.0950854	5.3196690	510.0	LAGEOS S
6009	1.28086179	-6.25093550	0.01083917	0.0000115	4.9144958	510.0	LAGEOS S
6011	-5.46600055	-2.40440632	2.24222633	0.3614136	3.5560004	510.0	LAGEOS S

Table 6. (Cont.)

6012	-5.85852332	1.39451918	2.09380360	0.3366937	2.9079072	510.0	LAGEOS S
6013	-3.56585175	4.12072173	3.30343593	0.5479496	2.2841311	510.0	LAGEOS S
6015	2.60437135	4.44417316	3.75033139	0.6325147	1.0407183	510.0	LAGEOS S
6016	4.89641244	1.31619103	3.85667940	0.6535216	0.2625974	510.0	LAGEOS S
6019	2.28065610	-4.91452561	-3.35542896	-0.5575162	5.1468740	510.0	LAGEOS S
6020	-1.88858525	-5.35486274	-2.89575904	-0.4743274	4.3733208	510.0	LAGEOS S
6022	-6.09993649	-0.99732961	-1.56858459	-0.2501394	3.3036555	510.0	LAGEOS S
6023	-4.95535543	3.84225672	-1.16384454	-0.1847308	2.4820470	510.0	LAGEOS S
6031	-4.31379637	0.89136016	-4.59726751	-0.16101170	2.9378294	510.0	LAGEOS S
6032	-2.37537721	4.87556536	-3.34538929	-0.5557184	2.0241507	510.0	LAGFOS S
6038	-2.16096201	-5.64269502	2.03536331	0.3269484	4.3466500	510.0	LAGFOS S
6039	-3.72473865	-4.42120085	-2.68609224	-0.4375322	4.0122794	510.0	LAGEOS S
6040	-0.74194629	6.19081106	-1.33854152	-0.2128536	1.6900722	510.0	LAGEOS S
6042	4.90076601	3.96826155	0.96634527	0.1530676	0.6806391	510.0	LAGEOS S
6043	1.37140422	-3.61472654	-5.05595522	-0.9212115	5.0750026	510.0	LAGEOS S
6044	1.09892158	3.68465309	-5.07186700	-0.9253576	1.2809506	510.0	LAGEOS S
6045	3.22345087	5.04535504	-2.19179565	-0.3531057	1.0022655	510.0	LAGEOS S
6047	-3.36192953	5.36582052	0.76363668	0.1708180	2.1305046	510.0	LAGEOS S
6050	1.19270589	-2.45097891	-5.74705992	-1.1305228	5.1652747	510.0	LAGEOS S
6051	1.11136027	2.16928944	-5.87433682	-1.1798647	1.0973431	510.0	LAGEOS S
6052	-0.90257336	2.40955293	-5.81655331	-1.1567893	1.9291997	510.0	LAGEOS S
6053	-1.31081871	0.31128877	-6.21328367	-1.3586514	2.9084375	510.0	LAGFOS S
6055	6.11835435	-1.57172100	-0.87860453	-0.1391206	6.0317332	510.0	LAGEOS S
6059	-5.88531357	-2.44834627	0.22167097	0.0349940	3.5358218	510.0	LAGEOS S
6060	-4.75162198	2.79207827	-3.20016573	-0.5290033	2.6103356	510.0	LAGEOS S
6061	2.99994686	-2.21934019	-5.15526494	-0.9474300	5.6462448	510.0	LAGFOS S
6063	5.88448935	-1.85347301	1.61285595	0.2573485	5.9780435	510.0	LAGEOS S
6064	6.02340925	1.61795277	1.33173946	0.2117397	0.2624141	510.0	LAGFOS S
6065	4.21358527	0.82084649	4.70277898	0.8342847	0.1923973	510.0	LAGEOS S
6067	5.18642500	-3.65391158	-0.65428497	-0.1034560	5.6694330	510.0	LAGFOS S
6068	5.08484498	2.67036094	-2.76809880	-0.4517485	0.4835704	510.0	LAGEOS S
6069	4.97844772	-1.08684482	-3.82316706	-0.6469052	6.0682443	510.0	LAGFOS S
6072	-0.94167295	5.96746050	2.03932243	0.3275913	1.7273055	510.0	LAGFOS S
6073	1.90515499	6.03229393	-0.81072033	-0.1283145	1.2648824	510.0	LAGFOS S
6075	3.60283800	5.23825470	-0.51593488	-0.0815201	0.9683076	510.0	LAGEOS S
6111	-2.44883536	-4.66797027	3.58275702	0.6000751	4.2292501	510.0	LAGEOS S
6078	-5.95230181	1.23193219	-1.92592449	-0.3087794	2.9375054	510.0	LAGEOS S
6123	-1.88177621	-0.81242522	6.01960023	1.2446543	3.5491504	510.0	LAGFOS S
6134	-2.44888907	-4.66806037	3.58245172	0.6000261	4.2292490	510.0	LAGFOS S
7804	5.10561482	-0.55523904	3.76964375	0.6363914	6.1748577	510.0	LAGEOS S
7815	4.57837147	0.45797069	4.40314823	0.7667585	0.0996950	510.0	LAGFOS S
7816	4.65433442	1.95919054	3.88437191	0.6589241	0.3984236	510.0	LAGEOS S
7818	5.42633013	-0.22931257	3.33461922	0.5536314	6.2409486	510.0	LAGFOS S
7901	-1.53575393	-5.16698859	3.40105332	0.5658978	4.4234782	510.0	LAGFOS S
7912	-5.46605314	-2.40428713	2.24218474	0.3614074	3.5559786	510.0	LAGFOS S
9020	5.88623833	-1.84560191	1.61528263	0.2577465	5.9793457	510.0	LAGEOS S
9022	5.05611669	2.71653885	-2.77577138	-0.4530906	0.4930206	510.0	LAGEOS S
9027	1.94278699	-5.80408616	-1.79689722	-0.2873795	5.0353909	510.0	LAGEOS S
9029	5.18646931	-3.65385009	-0.65432196	-0.1034618	5.6694449	510.0	LAGFOS S
9030	4.59521187	2.03945937	3.91263545	0.6645956	0.4177027	510.0	LAGEOS S
9039	5.18647940	-3.65382929	-0.65432166	-0.1034618	5.6694485	510.0	LAGFOS S
9066	4.33130529	0.56753276	4.63311390	0.8181558	0.1302857	510.0	LAGEOS S
9074	3.18388356	1.42148329	5.32281488	0.9939421	0.4199057	510.0	LAGFOS S
9077	3.90743508	1.60245139	4.76389942	0.8488147	0.3891833	510.0	LAGFOS S
9113	-2.44999517	-4.62441669	3.63503973	0.6102375	4.2251876	510.0	LAGFOS S
9114	-1.26483423	-3.46687984	5.18546504	0.9554410	4.3625582	510.0	LAGFOS S
9115	3.12127684	0.59265031	5.51272333	1.0508774	0.1876382	510.0	LAGFOS S
9117	-6.00740067	-1.11186891	1.82574947	0.2922392	3.3246031	510.0	LAGEOS S
2020	3.60288855	5.23822640	-0.51593304	-0.0815181	0.9682975	510.0	LAGEOS S
2708	-5.67288322	-2.02121954	2.09393673	0.3367159	3.4838617	510.0	LAGEOS S
2709	-2.37759155	4.88966379	-3.32343385	-0.5516476	2.0233799	510.0	LAGFOS S

Table 6. (Cont.)

2727	4.43360515	-2.26816585	3.97169941	0.6764991	5.8103096	510.0	LAGEOS S
2744	-4.95540778	3.84223633	-1.16378590	-0.1847188	2.4820535	510.0	LAGFOS S
2765	-0.94167276	5.96745334	2.03934169	0.3275964	1.7273042	510.0	LAGFOS S
2766	-5.67288332	-2.02124127	2.09393916	0.3367127	3.4838651	510.0	LAGFOS S
2805	-4.75162680	2.79208601	-3.20015737	-0.5289996	2.6103335	510.0	LAGFOS S
2811	-5.46800618	-2.78140286	2.25320964	0.3634470	3.5523337	510.0	LAGFOS S
2812	4.90160354	1.30562971	3.85364950	0.6529209	0.2603582	510.0	LAGFOS S
2813	5.86450316	-1.85354946	1.61773651	0.2573302	5.9780319	510.0	LAGFOS S
2818	2.10295912	0.72165481	5.95818835	1.2158371	0.3305662	510.0	LAGEOS S
2820	2.28060061	-4.91455302	-3.35544300	-0.5575168	5.1468621	510.0	LAGFOS S
2821	-3.36191507	5.36563823	0.76365801	0.1208233	2.1304999	510.0	LAGEOS S
2825	1.19258554	-2.45100734	-5.74706034	-1.1305262	5.1652302	510.0	LAGFOS S
2830	4.21354877	0.82086208	4.70280795	0.8342922	0.1924017	510.0	LAGFOS S
2831	-2.16393648	-5.64273126	2.03527701	0.3269436	4.3466558	510.0	LAGEOS S
2832	-3.41741042	4.11534176	3.46170489	0.5774046	2.2638600	510.0	LAGFOS S
2838	3.22345193	5.04535045	-2.19179121	-0.3531035	1.0022640	510.0	LAGFOS S
2840	4.90076370	3.96825310	0.96635842	0.1530713	0.6806373	510.0	LAGFOS S
2844	1.28088159	-6.75095226	-0.01084213	-0.0017108	4.9144979	510.0	LAGEOS S
2846	-1.88856915	-5.35490766	-2.89573930	-0.4743206	4.3733255	510.0	LAGFOS S
2847	1.37138854	-3.61478266	-5.05560507	-0.9212001	5.0749932	510.0	LAGFOS S
2849	-5.88533387	-2.44836394	0.22166411	0.0349948	3.5358223	510.0	LAGFOS S
0126	-0.90259406	2.40954178	-5.81654396	-1.1567882	1.9292074	510.0	LAGFOS S
1511	-2.35143212	-4.64507682	3.67376526	0.6176640	4.2437936	510.0	LAGFOS S
1512	-2.35044573	-4.65197714	3.66563048	0.6161005	4.2445603	510.0	LAGFOS S
1513	-2.35113228	-4.65547559	3.66095812	0.6151887	4.2447453	510.0	LAGEOS S
1514	-2.35362416	-4.64133967	3.67705353	0.6162991	4.2430935	510.0	LAGFOS S
1561	4.84924796	-0.36027280	4.11468621	0.7056352	6.2090489	510.0	LAGFOS S
1562	4.84670553	-0.37019116	4.11650936	0.7060597	6.2069754	510.0	LAGFOS S
1563	4.84893437	-0.36022937	4.11527408	0.7075138	6.2090531	510.0	LAGFOS S
1003	0.80787247	-5.65197566	2.83350880	0.4633456	4.8543615	510.0	LAGFOS S
1005	1.26369121	-6.25488453	-0.06867660	-0.0108628	4.9117344	510.0	LAGFOS S
1015	3.98311713	-0.04849222	4.96471727	0.8979191	6.2710364	510.0	LAGFOS S
1041	-2.28236256	-1.45262561	5.75690576	1.1340694	3.7084412	510.0	LAGFOS S
2064	-2.35362423	-4.64133982	3.67705364	0.6182991	4.2430935	510.0	LAGFOS S
7201	3.91112140	-0.15767487	5.01910690	0.9117147	6.2429186	510.0	LAGFOS S
7203	4.03391681	0.48669531	4.90045739	0.8818460	0.1201548	510.0	LAGEOS S
7204	0.88287624	-4.92485512	3.94412949	0.6708644	4.8897842	510.0	LAGEOS S
8793	4.09132737	0.36845899	4.88326414	0.8727250	0.0898381	510.0	LAGFOS S
1401	-2.28231257	-1.45270950	5.75689060	1.1340613	3.7085047	510.0	LAGFOS S
1405	-2.35617356	-4.64675339	3.66847166	0.6166538	4.2431270	510.0	LAGFOS S
1407	1.12989214	-4.83302529	3.99233089	0.6806767	4.9420450	510.0	LAGFOS S
1851	0.64752959	-5.17803167	3.65653361	0.6143561	4.8367949	510.0	LAGEOS S
1852	0.64720942	-5.17814666	3.65647122	0.6143349	4.8367313	510.0	LAGFOS S
1853	-2.26221598	-1.45291606	5.75690904	1.1340651	3.7085608	510.0	LAGFOS S
4013	1.15245134	-5.58848423	2.84019977	0.4645240	4.9157531	510.0	LAGFOS S
4040	1.15245158	-5.58848433	2.84019962	0.4645240	4.9157532	510.0	LAGFOS S
4041	0.91859509	-5.53473663	3.02352368	0.4970930	4.8768561	510.0	LAGFOS S
4060	0.91858689	-5.54835453	2.99863324	0.4926385	4.8764585	510.0	LAGFOS S
4061	2.86161648	-5.37250951	1.86804286	0.2992017	5.2246905	510.0	LAGFOS S
4081	1.92044360	-5.61941441	2.31914347	0.3745840	5.0416692	510.0	LAGFOS S
4083	1.16005721	-5.58586634	2.84723605	0.4648831	4.9171516	510.0	LAGFOS S
4141	-1.52029729	-5.17525198	3.39448633	0.5647526	4.4266747	510.0	LAGFOS S
4142	-1.48672748	-5.15115133	3.44554468	0.5742518	4.4314152	510.0	LAGFOS S
4143	-1.52020963	-5.17527784	3.39468673	0.5647527	4.4266916	510.0	LAGFOS S
4144	-1.48674178	-5.15119920	3.44546601	0.5742374	4.4314151	510.0	LAGFOS S
4145	-1.52111191	-5.08333074	3.53015570	0.5901623	4.4216444	510.0	LAGFOS S
4146	-1.48061512	-5.11822705	3.49614908	0.5837274	4.4309404	510.0	LAGFOS S
4147	-1.52112585	-5.083336850	3.53007908	0.5901479	4.4215444	510.0	LAGEOS S
4148	-1.70756433	-4.66299319	3.99137580	0.6803121	4.3613738	510.0	LAGEOS S
4149	-1.52012169	-5.17530286	3.39448662	0.5647527	4.4267085	510.0	LAGEOS S
4150	-1.70746353	-4.66306331	3.99133338	0.6803100	4.3613977	510.0	LAGFOS S

Table 6. (Cont.)

4151	-1.48886201	-5.13835160	3.46358235	0.5776350	4.4303684	510.0	LAGEOS S
4159	-1.51758475	-5.17309103	3.39916228	0.5655863	4.4270444	510.0	LAGFOS S
4160	-1.52107005	-5.17509595	3.39456210	0.5647301	4.4265290	510.0	LAGFOS S
4161	-1.52489523	-5.14651072	3.43595578	0.5724501	4.4243437	510.0	LAGEOS S
4162	-1.51809760	-5.12034950	3.47766078	0.5802684	4.4241726	510.0	LAGFOS S
4163	-1.52906759	-5.10822996	3.49090810	0.5827432	4.4215541	510.0	LAGEOS S
4164	-1.51147520	-5.17516439	3.39882787	0.5655237	4.4282369	510.0	LAGFOS S
4173	-1.52296544	-5.16733631	3.40542631	0.5667564	4.4257853	510.0	LAGFOS S
4174	-1.51168002	-5.17505295	3.39882533	0.5655231	4.4282013	510.0	LAGFOS S
4189	-1.70745574	-4.66304213	3.99131513	0.6803100	4.3613977	510.0	LAGFOS S
4197	-1.51312905	-5.16035933	3.42025317	0.5695244	4.4271731	510.0	LAGEOS S
4198	-1.52101049	-5.17099077	3.40070851	0.5658802	4.4263249	510.0	LAGEOS S
4240	-2.72218127	-4.27317581	3.86137835	0.6544599	4.1451980	510.0	LAGFOS S
4241	-2.67312959	-4.52702607	3.60023384	0.6035882	4.1790145	510.0	LAGEOS S
4242	-2.5747396	-4.52702041	3.60020737	0.6035831	4.1790065	510.0	LAGEOS S
4260	-2.72224309	-4.27311384	3.86138378	0.6544624	4.1451811	510.0	LAGFOS S
4280	-2.67185433	-4.52120114	3.60748804	0.6050336	4.1786597	510.0	LAGFOS S
4340	0.30746866	-5.49614132	3.21077006	0.5309537	4.7682739	510.0	LAGFOS S
4341	0.30745143	-5.49614210	3.21076999	0.5309537	4.7682707	510.0	LAGFOS S
4401	-2.63100023	-4.64659420	3.47656845	0.5802565	4.1971939	510.0	LAGEOS S
4404	-2.57259675	-4.61801611	3.55680652	0.5953812	4.2041443	510.0	LAGEOS S
4405	-2.57262301	-4.61798419	3.55683082	0.5953855	4.2041371	510.0	LAGEOS S
4440	-2.57473961	-4.61619947	3.55759327	0.5955314	4.2036229	510.0	LAGEOS S
4441	-2.57485707	-4.61608548	3.55765576	0.5955433	4.2035930	510.0	LAGEOS S
4442	-2.63102896	-4.64652648	3.47703255	0.5802688	4.1971830	510.0	LAGEOS S
4443	-2.63106677	-4.64646001	3.47709877	0.5802812	4.1971717	510.0	LAGEOS S
4444	-2.63109190	-4.64639237	3.47716410	0.5802935	4.1971604	510.0	LAGFOS S
4445	-2.57492352	-4.61602126	3.55769121	0.5955500	4.2035761	510.0	LAGEOS S
4446	-2.57498989	-4.61595681	3.55772657	0.5955567	4.2035592	510.0	LAGEOS S
4540	-2.45113111	-4.62345786	3.63555822	0.6103348	4.2249289	510.0	LAGEOS S
4610	-2.09614176	-4.47750941	4.02065006	0.6860636	4.2745614	510.0	LAGEOS S
4690	-2.09614792	-4.47749261	4.02066403	0.6860665	4.2745589	510.0	LAGEOS S
4841	1.26401381	-4.87503326	3.90054376	0.6622474	4.9660798	510.0	LAGFOS S
4948	3.91139810	-0.31251170	5.01171771	0.9098195	6.2034837	510.0	LAGFOS S
4949	3.91139222	-0.31254881	5.01171997	0.9098201	6.2034741	510.0	LAGFOS S
4954	4.50613096	-0.09182254	4.49793986	0.7877615	6.2628333	510.0	LAGFOS S
4960	4.07552249	0.93174868	4.80162381	0.8577576	6.2247761	510.0	LAGFOS S
4964	-2.27383909	-4.50913144	3.88560106	0.6590665	4.2453444	510.0	LAGFOS S
6077	3.92016900	-0.13473199	5.01273199	0.9100874	6.2488557	510.0	LAGFOS S
7059	1.13066671	-4.83133364	3.99414366	0.6810437	4.9427746	510.0	LAGEOS S
7066	1.26160736	-4.88155506	3.89319653	0.6607841	4.9652932	510.0	LAGEOS S
7083	1.13069122	-4.83136256	3.99410448	0.6810356	4.9422781	510.0	LAGFOS S
7086	-1.33012934	-5.32857948	3.23615185	0.5354124	4.4677730	510.0	LAGFOS S
7092	-6.14345984	1.36470393	1.03416056	0.1639520	2.9230001	510.0	LAGFOS S
7114	-2.41042644	-4.47760376	3.83868946	0.6498319	4.2185858	510.0	LAGFOS S
7115	-2.35086577	-4.65554669	3.66100069	0.6151994	4.2447971	510.0	LAGEOS S
7805	2.89224667	1.31182388	5.51272233	1.0510470	6.4258312	510.0	LAGFOS S
7810	4.33130451	0.56753909	4.63311318	0.6181731	6.1303094	510.0	LAGEOS S
7814	4.07552367	0.93179471	4.80161108	0.8577549	6.2247868	510.0	LAGFOS S
7855	3.90744904	1.60243137	4.76367764	0.8488260	6.3891946	510.0	LAGFOS S
7920	-1.93674499	-5.07762064	3.33202621	0.5530128	4.3480077	510.0	LAGFOS S
7922	-1.93673466	-5.07762305	3.33202870	0.5530133	4.3480096	510.0	LAGEOS S
7953	1.51116302	-4.46357009	4.28306756	0.7409781	5.0392251	510.0	LAGFOS S
7958	1.06976533	-4.57115592	4.30332247	0.7452790	4.9427720	510.0	LAGEOS S
7991	4.59516832	2.03947372	3.91265955	0.6646216	6.4177220	510.0	LAGFOS S
7206	-1.33081551	-5.32859885	3.23587478	0.5353553	4.4676552	510.0	LAGEOS S
3001	4.67887428	0.1155115	4.32433043	0.7494037	6.0024901	510.0	LAGFOS S
3003	1.49011983	-4.46734165	4.28731661	0.7418705	5.0343340	510.0	LAGFOS S
9064	3.06003492	0.97013060	5.49258983	1.0448495	6.3070286	510.0	LAGFOS S
9065	3.92347140	0.29990642	5.00257655	0.9076160	6.0763156	510.0	LAGEOS S
9076	2.88453753	1.34215202	5.50952430	1.0500292	6.4355133	510.0	LAGFOS S

Table 6. (Cont.)

9120	4.61366393	1.48555639	4.13216067	0.7092970	0.3115219	510.0	LAGEOS S
9124	-1.28904980	-3.46760433	5.16651657	0.9500789	4.3583724	510.0	LAGEOS S
130	5.10562474	-0.55521927	3.76963987	0.6364137	6.1748859	510.0	LAGEOS S
131	5.10562387	-0.55522128	3.76964074	0.6364139	6.1748855	510.0	LAGEOS S
140	4.59524083	2.03941256	3.91263954	0.6646151	0.4177051	510.0	LAGEOS S
141	4.59523945	2.03941196	3.91264146	0.6646154	0.4177051	510.0	LAGEOS S
150	4.58790230	0.41954950	4.39645262	0.7653854	0.0912130	510.0	LAGEOS S
151	4.58789995	0.41954960	4.39645465	0.7653859	0.0912131	510.0	LAGEOS S
1039	2.77874107	1.62550172	5.48764446	1.0431915	0.5793173	510.0	LAGEOS S
1055	3.90740767	1.60743656	4.76391001	0.6488339	0.3891981	510.0	LAGEOS S
1072	2.88605643	2.15702486	5.24531443	0.9720476	0.6418382	510.0	LAGEOS S
1073	2.88595400	2.15704211	5.24536446	0.9720615	0.6418594	510.0	LAGEOS S
1074	2.88607372	2.15697282	5.24532733	0.9720512	0.6418241	510.0	LAGEOS S
1084	3.18391309	1.42154306	5.32277347	0.9939407	0.4199350	510.0	LAGEOS S
9131	4.09834072	2.00739887	4.44108251	0.7751705	0.4554713	510.0	LAGEOS S
1181	3.80062274	0.86200185	5.02885498	0.9142199	0.2780505	510.0	LAGEOS S
8031	3.59385957	-0.20275876	5.24808209	0.9727498	6.2768554	510.0	LAGEOS S
8034	3.91971303	0.29885627	5.00597895	0.9063656	0.0761203	510.0	LAGEOS S
1302	1.16302141	-5.58542456	2.84168989	0.4648221	4.9176759	510.0	LAGEOS S
1304	2.88737052	-5.37413092	1.85458668	0.2969819	5.2053888	510.0	LAGEOS S
1327	-2.35473316	-4.64674963	3.66944160	0.6168378	4.2433733	510.0	LAGEOS S
2021	4.02777078	0.30629327	4.91949001	0.8866273	0.0750218	510.0	LAGEOS S
2028	1.10712836	-4.34861873	4.51735269	0.7920886	4.9616802	510.0	LAGEOS S
2192	-0.74104946	-5.45675687	3.20711100	0.5302692	4.5774169	510.0	LAGEOS S
2197	-3.85153304	0.39719296	5.05152039	0.9200868	3.0388676	510.0	LAGEOS S
2352	-0.59337031	-2.21424494	5.93197539	1.2042772	4.4505896	510.0	LAGEOS S
2741	-1.53572068	-5.16700587	3.40104800	0.5658959	4.4734983	510.0	LAGEOS S
0199	1.92115703	-5.62036496	2.31615174	0.3740799	5.0417511	510.0	LAGEOS S
0284	4.90151319	1.30755337	3.85321284	0.6528558	0.2607090	510.0	LAGEOS S
0124	3.23500970	4.05041572	3.70614033	0.6238916	0.8968553	510.0	LAGEOS S
0130	4.35002758	2.00440963	3.63801962	0.6108954	0.5887074	510.0	LAGEOS S

This global datum was constructed in the hope that it would provide a reference system with sufficient accuracy for determination of polar motion. These coordinates were used in some test orbit calculations, which also introduced the pole position as a variable to be determined. The orbital fits were not good enough, and the pole positions determined were too inconsistent to be useful for geophysical interpretation. In practice then, through experiment the offending coordinates were identified. The result was to use the GSFC80 coordinates as the base. The new stations observing Lageos were then treated as unknowns and recovered with the procedure used to bring new stations into the system. This will be described below. The base set of coordinates is given in Table 7. Of course, not all these stations contributed data in the MERIT campaign, and we cannot be sure they are all known with sufficient accuracy. It was found that in the GSFC80 list, stations 7833 and 7834 were not acceptable. Also the sites at Goldstone (7085) and Owens Valley (7084) were moved. By use of the datum coordinates to calculate the translation vector, the station coordinates for 7114 and 7115 were calculated. The coordinates for the new site at Goldstone (7115) proved to be acceptable. However, the coordinates for 7114 needed improvement. The coordinates in Table 7, that have been verified using Lageos data are indicated with an *. The coordinates determined from Lageos data are designated with **.

The procedure for bringing new sites into the system is as follows. Each week, a precision orbit is determined by use of data from all the sites. A selection of data is made to obtain no more than about thirty (30) evenly distributed observations in each pass. In addition to the orbital elements determined from these data, other parameters are determined in the same least-squares adjustment. The positions of the earth's pole (x, y) are two of the additional parameters. In addition, since we do not know the value of GM or the scale of the system of coordinates without error, two more parameters are introduced to adjust for these quantities. If data from a station with coordinates that are not considered adequately known also occurs in the orbit, then the three coordinates for that station are introduced. Therefore, each weekly run can have as many as 30 unknowns. We will discuss the significance of each of the parameters in turn. If an unknown station contributes data in several weeks the individual (independent) corrections are compared. Generally with 10 independent solutions, the average of the solutions is an acceptable estimate of the coordinates of the station. However, a station is treated as unknown until the estimated uncertainty of each coordinate (X, Y, or, Z) is less than 0.30 m. From the estimate of the coordinates, an estimate of the accuracy of an individual determination can be obtained. The formal uncertainty of each coordinate and the standard error of unit weight are given for each of the stations determined in Table 8. Once a station is determined with an acceptable

accuracy, the coordinates are adopted and held fixed. The residuals of all the stations are monitored in each orbital run to verify that the coordinates are, indeed, suitably well known. In no case, has it been necessary to continue to refine the coordinates of a station, once it has been put into the "known" category. This process of constantly changing the coordinates used to define the SAO polar motion system will not produce a very homogeneous system. For the purposes of obtaining a completely consistent system, all the coordinates and the pole positions themselves should be recovered simultaneously. Therefore this process, although it produces quasi-real time pole position based on all the available data, is not to be considered the most definitive calculation possible with the given data. Added to the fact that the data used here are only a subset of the available data and that they are not final (verified) data, it is expected that significant improvements in pole position and station coordinates are possible with a more thorough and complete analysis.

The accuracy of an individual estimate has a useful interpretation. It is the expected uncertainty in the position as determined from a single orbit determination with a "typical" data set. Such a data set would generally contain several passes of data from the station in question. Generally, the accuracy of a single "observation" and the uncertainty of the mean, which establishes the accuracy of the coordinates, depend on the total set of data being acquired and the geometry of the data with respect to the orbital distribution and to the overlap of the data with that from known stations. All these factors make a simple interpretation of these accuracies difficult. However, one can surmise that the overall accuracy of an individual station "fix" is of the order of 1m, and that the coordinates of a station can be determined with an accuracy of about 0.30m with approximately 50 days of tracking data.

Table 7. Coordinates of the adopted base stations
GSFC80 expressed in the LAGEOS system

Station Number	Station Name	X(Mm)	Y(Mm)	Z(Mm)
7061	SANDIEGO	-2.42883061	-4.79975260	3.41727486
7062	SANDIEGO	-2.42883061	-4.79975260	3.41727486
7063*	GSFC	1.13071224	-4.83137179	3.99408944
7064	GSFC	1.13068671	-4.83134598	3.99412548
7065	GSFC	1.13068876	-4.83135507	3.99411398
7067	BERMUDA	2.30853690	-4.87408517	3.39363093
7068	GD TURK	1.92048003	-5.61948371	2.31891571
7069	PATRCK	0.91795555	-5.54837533	2.99877821
7080	QUINCY	-2.51689748	-4.19884622	4.07641443
7082	BEAR LKE	-1.73600088	-4.42505104	4.24143335
7084	OWENS VY	-2.41059477	-4.47774676	3.83865104
7085	GLDSTNE	-2.35339890	-4.64153101	3.67690167
7086**	MCDONALD	-1.33012934	-5.32852948	3.23615185
7090**	YARGADEE	-2.38900316	5.04333372	-3.07852981
7091*	HAYSTCK	1.49245190	-4.45728279	4.29681839
7092**	KWAJALIN	-6.14345012	1.36470633	1.03416242
7096**	SAMOA	-6.10005004	-0.99619884	-1.56897785
7100	GSFC	1.13135306	-4.83117270	3.99413411
7102*	GSFC	1.13068429	-4.83135803	3.99411375
7114**	OWENS VY	-2.41042644	-4.47780378	3.83868946
7115*	GLDSTNE	-2.35086577	-4.65554669	3.66100069
7120**	MAUI	-5.46600451	-2.40440478	+2.24223003
7805**	METZAHVE	2.89259868	1.31180746	5.51260879
7833**	KOOTWIJK	3.89922375	.39674106	5.01507459
7834**	WETTZELL	4.07553153	0.93177832	4.80161653
7835**	GRASSE	4.58162076	0.55615598	4.38935774
7907*	PERU	1.94278738	-5.80407995	-1.79692002
7921	HOPKINS	-1.93676358	-5.07770603	3.33192293
7929*	BRAZIL	5.18646555	-3.65386029	-0.65432249
7943*	ORRORAL	-4.44754742	2.67713757	-3.69499762
7940	ATHENS	4.59521778	2.03946485	3.91261609

- * Indicates coordinates have been verified with Lageos
Laser data in 1980.
- ** Indicates coordinates have been determined with Lageos
Laser data in 1980.

Table 8. Uncertainty of determined coordinates and accuracy of individual determination

Station Number	X		Y		Sigma	Z		n
	Sigma	Single Obs.	Sigma	Single Obs.		Single Obs.		
7086	0.21	0.91	0.41	1.75	0.29	1.21	18	
7090	0.16	0.59	0.07	0.24	0.38	1.37	13	
7092	0.14	0.45	0.24	0.81	0.40	1.34	11	
7096	0.18	0.62	0.19	0.66	0.20	0.66	12	
7114	0.15	0.42	0.15	0.43	0.15	0.43	8	
7120	0.07	0.19	0.17	0.45	0.06	0.20		
7805	0.26	0.72	0.58	1.64	0.31	0.88	8	
7833	0.08	0.19	0.47	1.04	0.52	1.15	5	
7834	0.61	1.64	0.19	0.51	0.43	1.14	7	
7835	0.12	0.30	0.17	0.43	0.18	0.44	6	

SAO Polar Motion Service (PMS).

The determination of polar motion using laser ranging to Lageos has been outlined above under the description of assimilating new stations into the reference system. The normal interval for providing polar motion data is five days, and this was the interval adopted. Pole positions were calculated every two days, when there were sufficient tracking data, and the results were found to agree with the five-day values to within the uncertainty of the solution. All the laser ranging data on Lageos were taken, and data were selected to obtain approximately 30 evenly distributed observations in each pass. An independent orbit was calculated for the data, consisting of the orbital elements, and their rates. In addition, the pole position (x,y) and scale factors for GM and the terrestrial reference system were introduced. The pole position is easily determined as it appears to the satellite as a diurnal variation of the whole terrestrial coordinate system. When necessary, selected station coordinates were also considered as unknown. In all, an orbit may have had as many as 30 unknown parameters.

The Length of Day (LOD) is derived in a different manner. The argument of the satellite's node is referred to some absolute origin, in our case the equinox of 1950.0. In practice, the node is determined with respect to the equator crossing of the satellite, as observed from the ground stations. The rate of the satellite node is also referred to the equinox of 1950.0 and is determined as the satellite crosses the equator at a different point each day. In normal analysis of satellite data, one introduces astronomically determined values of the earth rotation (UT1), which correctly define the position of the Greenwich Meridian, for the numerical calculation of the station position and the orbital elements. In the case of a quick service, one does not have observations of UT1 and, in practice, zero is used. Therefore, the orbit calculation program uses the incorrect position (and rate) of the earth. This error is directly absorbed in the node and its rate. Therefore, by analyzing the rate of the node, as determined from the tracking data, the actual variation in earth rotation is measured. Of course, to extract this information, all other contributions to the motion of the node such as tides, gravity field, lunar and solar perturbations must be properly treated. The results obtained from analyzing the rate of the node are surprisingly good, considering all the sources of error. The conversion factor is approximately 0.24 milliseconds of LOD for each microdegree per day of nodal rate. In fact the value of UT1 could also be extracted after the fact, from a very long time series, and such an investigation could very well be successful. Of course, in any study of the UT1 or LOD, the classical values must be matched at some epoch because the absolute rate of the node is not known. Therefore, a value was adopted that gave the LOD in agreement with the BIH value at the beginning of the year. This will

probably need adjustment after a year, as it was done with very little data, and can certainly be improved.

The data used each week were obtained by the SAO network. Because SAO uses these data for making routine predictions, to aid in acquiring satellite data during the next week, stringent requirements are not placed on the accuracy of the data or on the orbital accuracy. The data files were first used for making these predictions, and when available, were utilized for the SAO PMS. The timeliness of this quick service is due to this existing operation, and the accuracy of the results, is due to the intrinsic accuracy of the data as they became available. The SAO PMS also benefited from the editing of bad data, which was done during the prediction calculation.

To prepare for the three-month MERIT campaign, SAO began the routine determination of polar motion and LOD from quick look data in January 1980, and we now have almost one year of data, (Table 9). Figure 3 shows the difference from BIH of the pole position and the LOD. As a byproduct, the coordinates of nine new laser stations participating have been established. During this period, 20 laser stations provided data, resulting in one of the richest data sets ever obtained. These coordinates seem to be accurate to several decimeters; the continued refinement of these coordinates during the next few years could result in measurement of relative motion of the observing stations, as well as the motion of the whole earth in space.

Table 9. SAO pole position and LOD

Epoch	x microradians	y	n	LOD (sec)
44244.	0.7351	0.9196	5	0.00
44249.	0.6435	0.9267	0	0.00
44254.	0.8471	0.7449	0	0.00
44259.	0.5231	0.9182	0	0.00
44264.	0.5849	0.8343	0	0.00
44269.	0.5015	1.0420	5	0.00
44274.	0.5456	0.6482	8	2.19
44279.	0.5746	0.5688	0	1.96
44284.	0.6493	0.7034	7	2.19
44289.	0.6442	0.7337	8	2.53
44294.	0.4429	0.7682	8	2.40
44299.	0.4919	0.7058	9	2.36
44304.	0.2492	0.6690	8	2.35
44309.	0.2205	0.5853	9	2.11
44314.	0.2632	0.5518	10	2.46
44319.	0.2187	0.5435	10	2.34
44324.	0.1228	0.7359	7	2.46
44329.	0.2912	0.6922	8	2.65
44334.	0.2147	0.7248	9	2.58
44339.	-0.1034	0.9423	9	2.46
44344.	-0.0912	0.7668	10	2.58
44349.	-0.0955	0.8346	10	2.31
44354.	-0.1718	0.9562	10	2.30
44359.	-0.0785	0.9655	10	2.63
44364.	-0.0984	0.8801	9	2.28
44369.	-0.0596	0.8621	9	2.43
44374.	-0.1544	0.9274	10	2.45
44379.	-0.1416	0.9933	9	2.23
44384.	-0.1577	0.9975	8	2.40
44389.	-0.0942	1.0158	8	2.23
44394.	-0.0788	1.0328	9	1.68
44399.	-0.0489	1.0324	9	1.80
44404.	-0.1727	1.0778	6	1.55
44409.	-0.0558	0.9712	7	1.73
44414.	-0.1124	1.0542	6	1.43
44419.	-0.0280	1.1236	6	1.26
44424.	-0.1511	1.1850	7	1.35
44429.	-0.1950	1.0920	6	1.41
44434.	-0.1245	1.1950	8	1.49
44439.	-0.0632	1.2430	8	1.25
44444.	-0.0327	1.2560	9	1.08
44449.	-0.0361	1.2350	11	1.25
44454.	0.0188	1.2670	10	1.54
44459.	-0.0040	1.3310	10	1.21
44464.	-0.0519	1.3340	10	1.54
44469.	-0.0528	1.3740	11	1.74
44474.	-0.0299	1.3780	11	1.81
44479.	-0.0301	1.4250	9	1.96

44484.	-0.0772	1.4440	11	2.04
44489.	-0.0182	1.4330	13	2.04
44494.	0.0308	1.4220	13	2.15
44499.	-0.0107	1.4050	13	2.16
44504.	-0.0144	1.4180	13	2.48
44509.	0.0048	1.4600	14	2.74
44514.	0.0466	1.4580	12	2.43
44519.	0.0369	1.4700	13	2.57
44524.	0.0306	1.5140	13	2.69
44529.	0.0596	1.5000	13	2.43
44534.	0.1321	1.4940	14	2.81
44539.	0.1117	1.5100	14	2.74
44544.	0.1204	1.5450	14	2.78
44549.	0.0962	1.5980	12	2.99
44554.	0.1130	1.6350	10	2.52
44559.	0.2122	1.5810	10	2.66
44564.	0.2922	1.5600	8	2.84
44569.	0.2724	1.5880	8	2.89
44574.	0.3333	1.6030	8	2.62
44579.	0.4122	1.628	9	2.57
44584.	0.3645	1.622	9	2.39
44589.	0.3326	1.627	10	2.89
44594.	0.3526	1.610	9	2.60
44599.	0.4242	1.606	7	2.82

Figure 2. Polar motion data

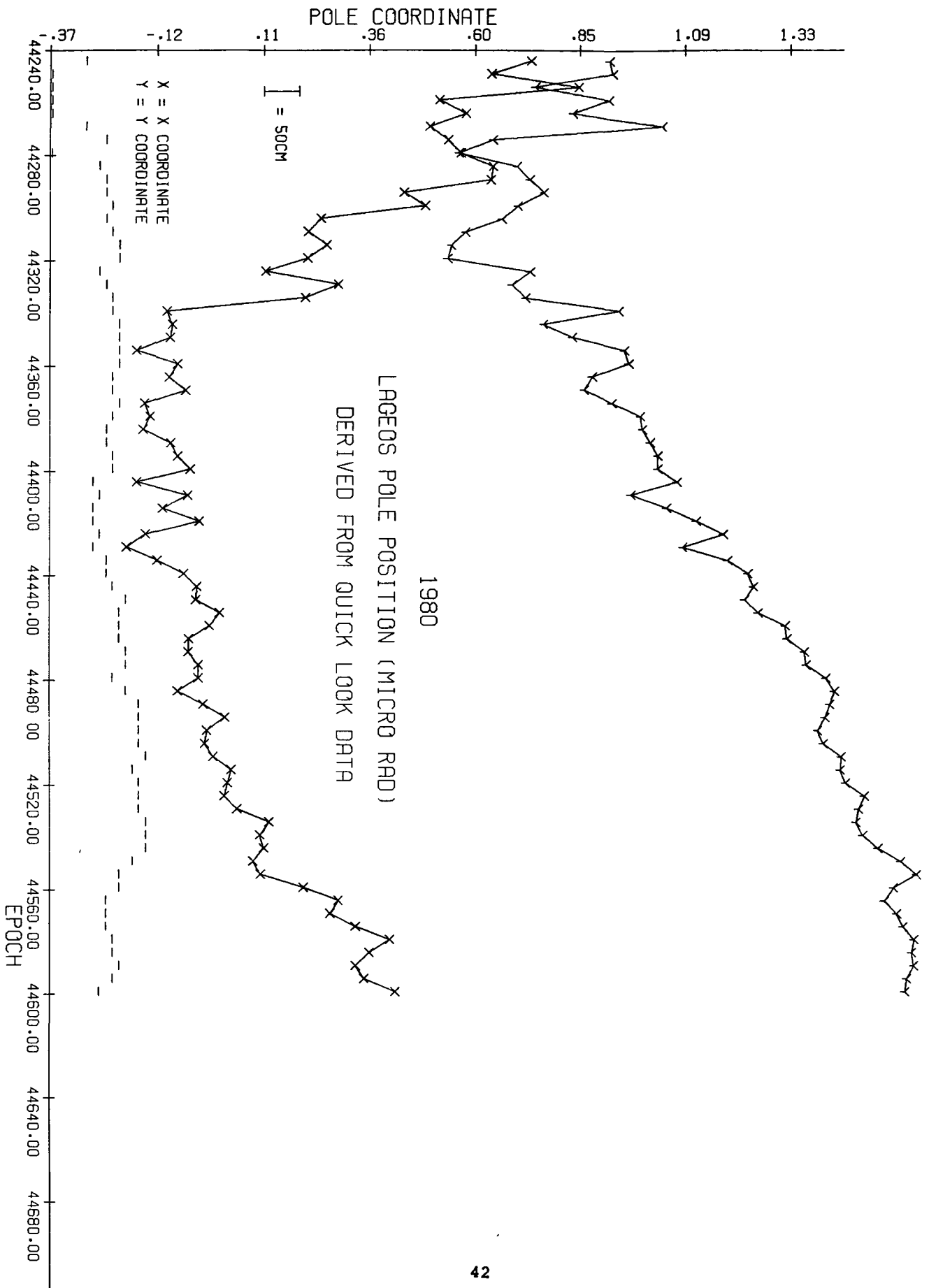


Figure 3. Residuals of SAO PMS vs BIH

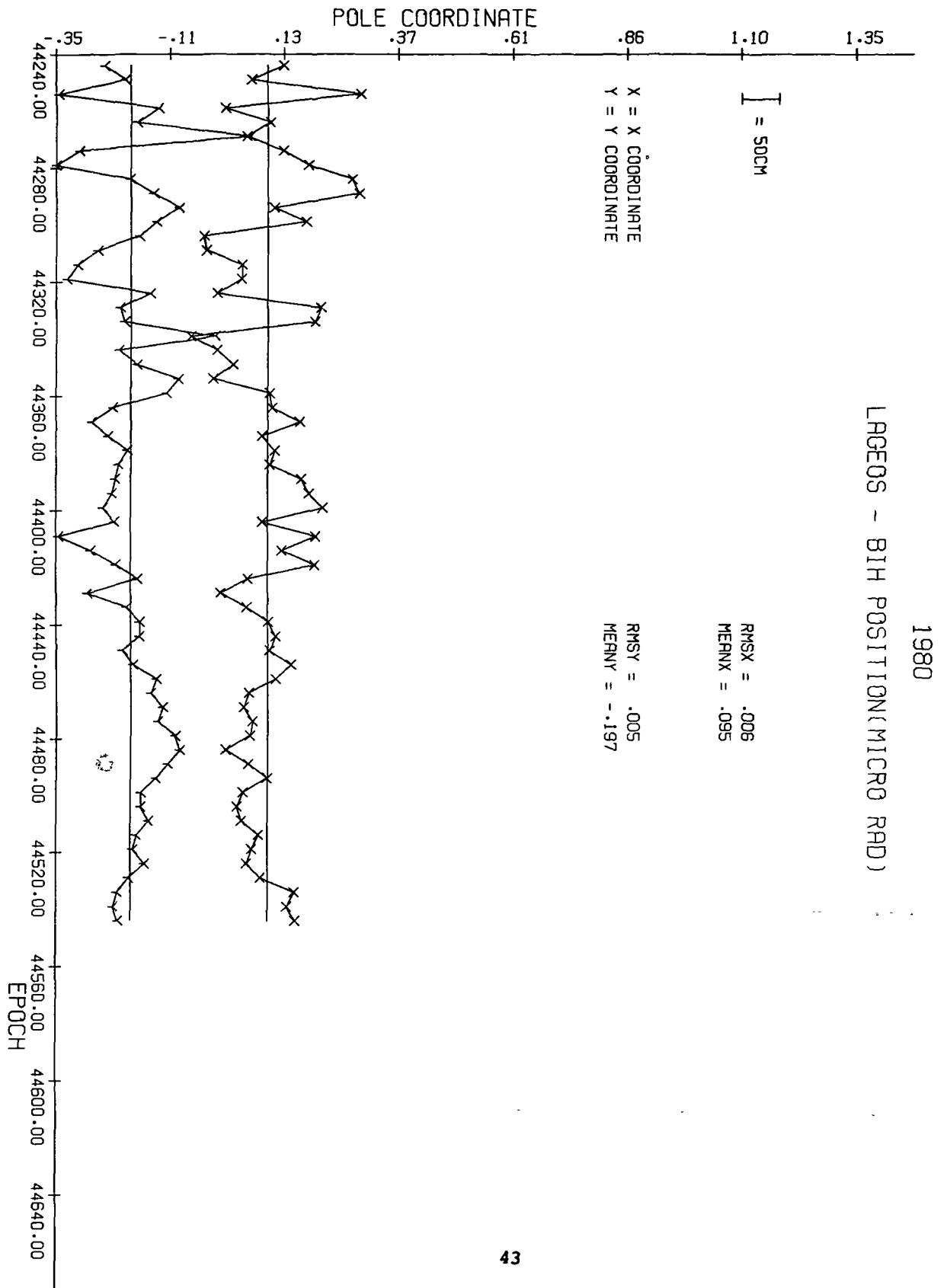
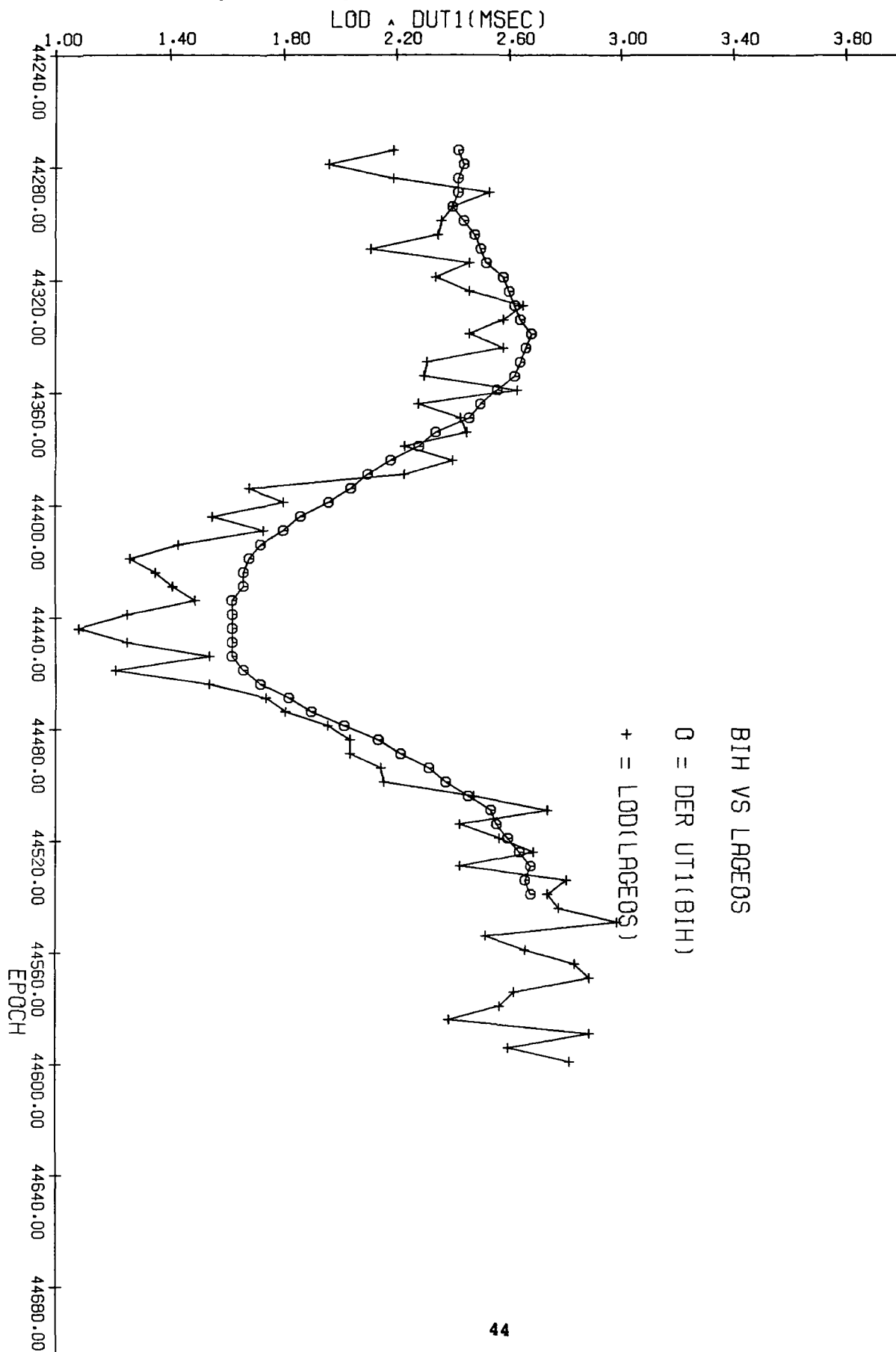


Figure 4. Length of Day data from SAO and BIH



The pole position determined by Lageos is not directly comparable with the astronomical values published by the BIH because they do not refer to the same reference system. Also, neither refers to the Conventional International Origin (CIO) although the BIH system was defined to do so as well as possible. The mean-square difference between the Lageos and BIH systems is calculated and is shown on Figure 1c. The least squares mean difference between the Lageos and BIH pole coordinates is found to be the following:

$$\begin{aligned}dx &= 0.093 \pm 0.006 \text{ microradians,} \\dy &= -0.196 \pm 0.006 \text{ microradians}\end{aligned}$$

The accuracy of the SAO pole position and LOD is hard to assess since there is, at present, no suitable standard of comparison. We believe it to be an improvement over classical data. From the internal consistency of the orbits, and the observation residuals, the result is unlikely to be much better than 0.20 m. Preliminary comparisons have been made of all the MERIT participants (Wilkins, 1980). Table 10. is a comparison of each technique with the "official" earth rotation data from the BIH. (See Wilkins (1980) for a definition of the techniques and the organizations.) The BIH values of course have errors also. Therefore, although the SAO values are in the best agreement with the BIH of any participant, the rms residuals, contain errors in the BIH values, and therefore must be considered an upper limit on the accuracy of the SAO pole position. Furthermore, the complete discussion of the observations will certainly provide improved polar motion and earth rotation. Therefore, in the future, data available to calibrate the quick service of the SAO tracking network will be available.

Table 10, RMS of quick service data for the period 44444-44544
Units are 0.001 arcsec and 0.0001 seconds of time.

Technique	Organization	n	x	y	UT1	LOD
Classical Astr.	BIH	21	15	27	21	35
Doppler (92)	DMA	45	21	16		
Doppler (67)	DMA	45	19	15		
Doppler (92)	GRG	6	36	51		
Doppler (67)	GRG	14	75	60		
LLR	CGA	6			23	
SLR(39)	SAO	19	8	10		20
SLR(39)	CNS	10	12	16		
SLR(10)	CNS	11	52	70		
SLR(39)	UTX	19	11	14		34
VLBI	NGS	5	12	13	10	
CERI	UCA	32			63	
CERI	NAV	31	latitude 0°040,UT0 0.0024s			

Although the quick service pole positions may never reach the ultimate accuracy achievable with detailed (and much more expensive) calculations, the accuracy can be improved significantly. A great deal of effort was spent to make the system work in an operational fashion which is now a reality. In making the system operational, a number of lessons have been learned:

First, an absolute minimum of 8 stations to get any results is essential.

Second, these stations must be geographically distributed to provide information on both the x and y axis. The stations in Australia and Europe give good definition of the x axis and the stations in North and South America give good information on the y axis. The slightly poorer values for the y axis are partly due to lack of data from the region between 60E and 90E. Excellent data were obtained for periods with 12 to 15 stations.

Third, a number of software improvements became apparent, which could be made to improve the accuracy or the orbit calculation. Also, with improved gravity field models and improved fundamental sets of station coordinates, the pole position will certainly be known with subdecimeter accuracy.

Because of the success of the MERIT campaign and examination of SAO's results this year, both BIH and the U.S. Naval Observatory are planning to use the SAO polar motion and earth rotation data in the pole position and earth rotation officially adopted. SAO intends to continue this quick service and may be a part of the new time and pole position service sanctioned by the international unions. If so, this service would be the first of the new space techniques to be incorporated operationally into the classical astronomical services. It will have been made possible by the systematic and excellent efforts of all elements of the SAO satellite tracking network operation, the cooperating agencies and stations.

5. FITTING LASER RANGE DATA

In order to economize the geophysical interpretation of laser ranging data and to eliminate the random component of the error budget in ranging data a Spline fitting process has been implemented. The main objectives of the resulting computer program are:

- 1) edit bad data points
- 2) compute normal points

The consequence of this program will be:

- 3) use of fewer and more reliable data points in orbit analysis
- 4) removal of the random noise component of the observation error,
- 5) easier study of the systematic errors.

The approach is to use a polynomial spline fit to the data. The spline theory used is described in de Boor (1978), and provides a rather general approach to functional approximation using B-splines. Simply stated, we use a spline fit, controlling the error in representing the true range with the degree of the spline and the knot spacing.

To edit bad data points an iterative least squares solution is made. Spline fits are quite sensitive to data distribution and errors. Therefore, a two step process is used. Data arcs are chosen with data gaps less than a certain prescribed value (say 100 seconds for Lageos). Then a spline fit is made to this arc with a very wide knot spacing (say 800 seconds). The least squares fit is robust in this case and bad data points are easily eliminated. However, a cubic fit over 800 seconds does not fit the true range variations very well. This spline would give a poor normal point. The second step then is to decrease the knot spacing to 400 seconds, then to 200 seconds, and finally to 100 seconds. Each fit is again used to eliminate bad data, each iteration providing a more stringent test. The final fit is satisfactory, the bad data being eliminated and the spline being adequate for calculating normal points. Figure 5 is an example of the results from a spline fit. Table 11 shows the observed, computed ranges and the residuals.

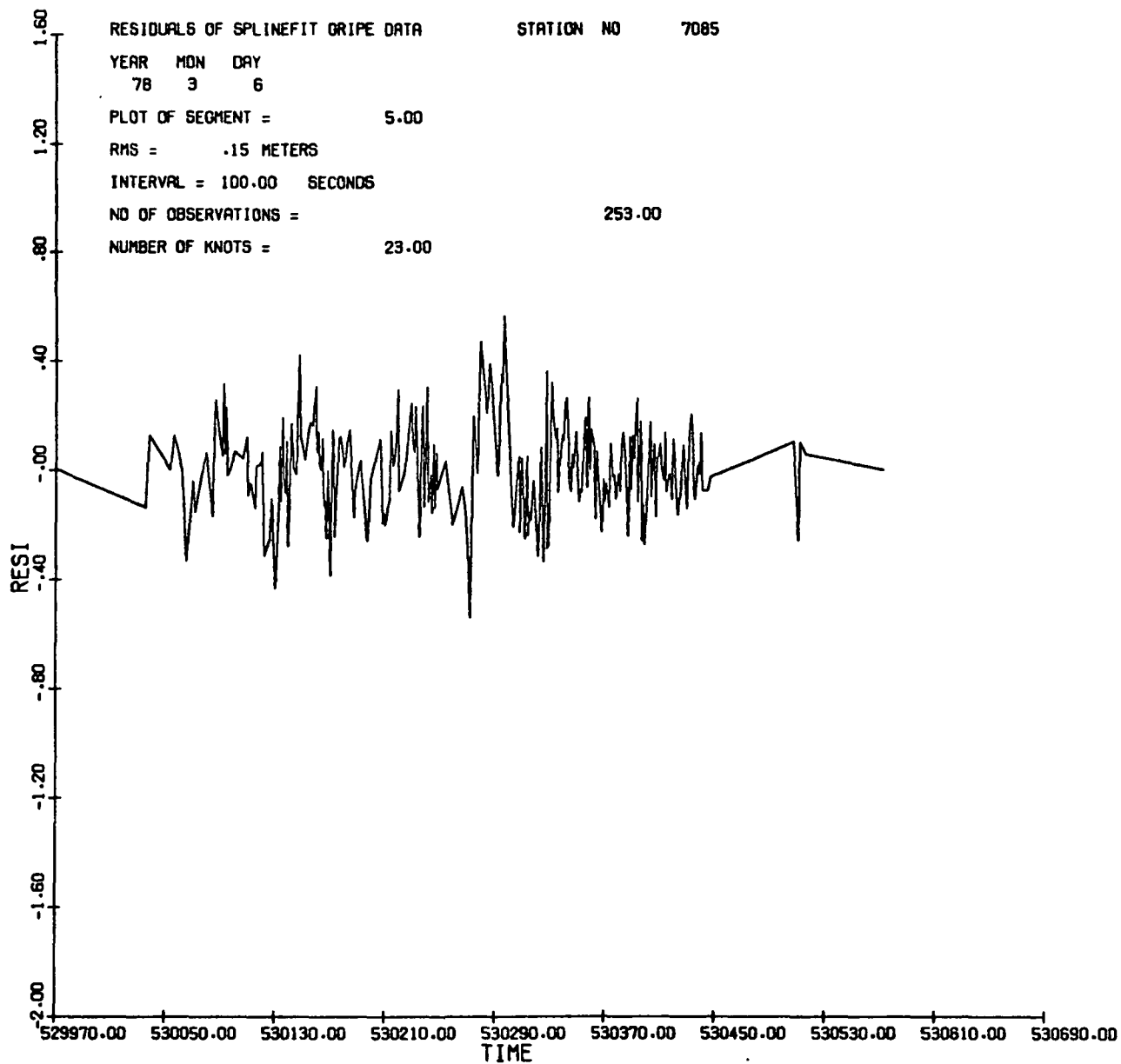


Figure 5a. Residuals of spline fit to Lageos laser data range residuals in meters, time in microseconds.

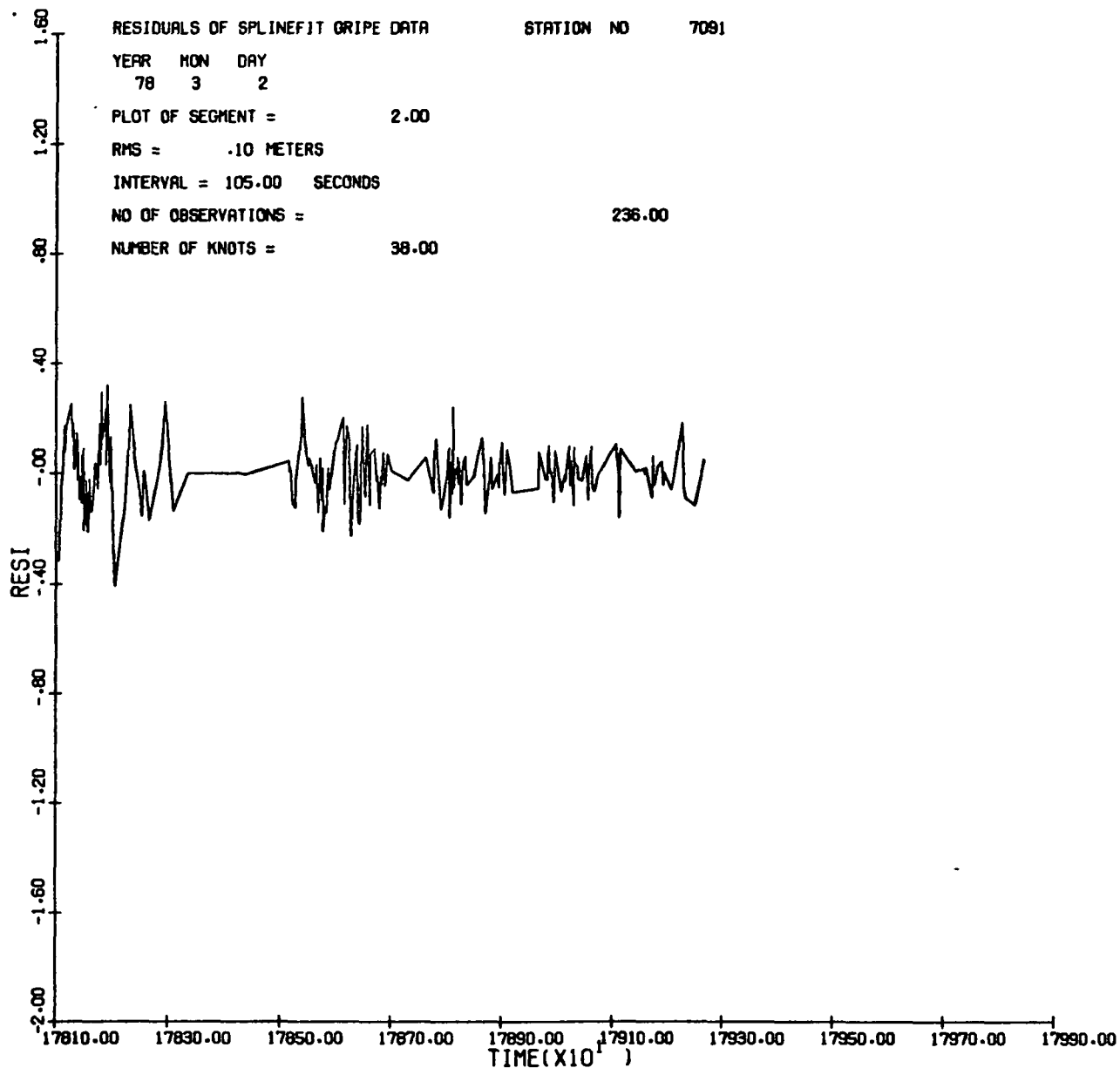


Figure 5b. Residuals of spline fit to Lageos laser data range residuals in meters, time in microseconds.

Table 11 Residuals of spline fit to data from station 7091.

NORS			RMS (m)	AVE (m)	AVE1 (m)	MEAN (m)	ITER
236			0.10053307D+00	0.64556757D+07	0.64556757D+07	0.31137871D-02	2
RMS NOT SATISFACTORY							
YEAR	MON	DAY	TIME	RANGE	XICAL	RES	WEIGHT
78	3	2	0.17810502D+06	6029738.630	6029738.945	-0.315	0.000
78	3	2	0.17810702D+06	6028937.410	6028937.588	-0.178	1.000
78	3	2	0.17810802D+06	6028541.570	6028541.736	-0.166	1.000
78	3	2	0.17810902D+06	6028149.050	6028149.102	-0.052	1.000
78	3	2	0.17811202D+06	6026990.520	6026990.514	0.006	1.000
78	3	2	0.17811302D+06	6026610.800	6026610.758	0.042	1.000
78	3	2	0.17811402D+06	6026234.370	6026234.223	0.147	1.000
78	3	2	0.17811502D+06	6025861.080	6025860.910	0.170	1.000
78	3	2	0.17811602D+06	6025490.890	6025490.817	0.073	1.000
78	3	2	0.17811702D+06	6025124.090	6025123.948	0.142	1.000
78	3	2	0.17811802D+06	6024760.460	6024760.299	0.161	1.000
78	3	2	0.17812702D+06	6021632.820	6021632.569	0.251	1.000
78	3	2	0.17812802D+06	6021301.300	6021301.171	0.129	1.000
78	3	2	0.17813002D+06	6020648.240	6020648.061	0.179	1.000
78	3	2	0.17813102D+06	6020326.480	6020326.349	0.131	1.000
78	3	2	0.17813202D+06	6020007.880	6020007.866	0.014	1.000
78	3	2	0.17813302D+06	6019692.630	6019692.614	0.016	1.000
78	3	2	0.17813402D+06	6019380.620	6019380.592	0.028	1.000
78	3	2	0.17813602D+06	6018766.380	6018766.235	0.145	1.000
78	3	2	0.17813702D+06	6018464.000	6018463.904	0.096	1.000
78	3	2	0.17813802D+06	6018164.780	6018164.806	-0.026	1.000
78	3	2	0.17814002D+06	6017576.380	6017576.305	0.075	1.000
78	3	2	0.17814102D+06	6017286.810	6017286.905	-0.095	1.000
78	3	2	0.17814202D+06	6017000.670	6017000.738	-0.068	1.000
78	3	2	0.17814302D+06	6016717.790	6016717.806	-0.016	1.000
78	3	2	0.17814402D+06	6016438.030	6016438.108	-0.078	1.000
78	3	2	0.17814502D+06	6016161.540	6016161.647	-0.107	1.000
78	3	2	0.17814602D+06	6015888.480	6015888.419	0.061	1.000
78	3	2	0.17814702D+06	6015618.320	6015618.428	-0.108	1.000
78	3	2	0.17814802D+06	6015351.760	6015351.673	0.087	1.000
78	3	2	0.17814902D+06	6015087.950	6015088.155	-0.205	1.000
78	3	2	0.17815002D+06	6014827.880	6014827.876	0.004	1.000
78	3	2	0.17815102D+06	6014570.680	6014570.835	-0.155	1.000
78	3	2	0.17815202D+06	6014316.850	6014317.031	-0.181	1.000
78	3	2	0.17815302D+06	6014066.280	6014066.465	-0.185	1.000
78	3	2	0.17815402D+06	6013819.110	6013819.139	-0.029	1.000
78	3	2	0.17815502D+06	6013574.940	6013575.052	-0.112	1.000
78	3	2	0.17815602D+06	6013334.110	6013334.207	-0.097	1.000
78	3	2	0.17815702D+06	6013096.390	6013096.601	-0.211	1.000
78	3	2	0.17815902D+06	6012631.090	6012631.112	-0.022	1.000
78	3	2	0.17816202D+06	6011957.060	6011957.197	-0.137	1.000
78	3	2	0.17816302D+06	6011738.910	6011739.045	-0.135	1.000
78	3	2	0.17816502D+06	6011312.360	6011312.473	-0.113	1.000
78	3	2	0.17816702D+06	6010898.820	6010898.879	-0.059	1.000
78	3	2	0.17816802D+06	6010696.910	6010696.951	-0.041	1.000
78	3	2	0.17816902D+06	6010498.280	6010498.269	0.011	1.000
78	3	2	0.17817002D+06	6010302.870	6010302.833	0.037	1.000
78	3	2	0.17817402D+06	6009553.510	6009553.566	-0.056	1.000
78	3	2	0.17817702D+06	6009025.910	6009025.729	0.181	1.000
78	3	2	0.17817902D+06	6008690.120	6008690.089	0.031	1.000
78	3	2	0.17818102D+06	6008367.750	6008367.453	0.297	1.000
78	3	2	0.17818202D+06	6008211.140	6008211.014	0.126	1.000
78	3	2	0.17818502D+06	6007761.370	6007761.213	0.157	1.000
78	3	2	0.17818802D+06	6007340.930	6007340.698	0.232	1.000
78	3	2	0.17818902D+06	6007207.070	6007207.037	0.033	1.000
78	3	2	0.17819102D+06	6006949.800	6006949.483	0.317	0.000
78	3	2	0.17819202D+06	6006825.740	6006825.591	0.149	1.000
78	3	2	0.17819602D+06	6006362.570	6006362.600	-0.030	1.000

Table 11 (Cont.)

78	3	2	0.17819702D+06	6006255.130	6006254.999	0.131	1.000
78	3	2	0.17820302D+06	6005677.530	6005677.860	-0.330	0.000
78	3	2	0.17820402D+06	6005592.680	6005593.086	-0.406	0.000
78	3	2	0.17822202D+06	6004622.450	6004622.575	-0.125	1.000
78	3	2	0.17823002D+06	6004530.130	6004529.994	0.136	1.000
78	3	2	0.17823202D+06	6004539.710	6004539.461	0.249	1.000
78	3	2	0.17824102D+06	6004743.460	6004743.428	0.032	1.000
78	3	2	0.17824902D+06	6005146.240	6005146.317	-0.077	1.000
78	3	2	0.17825202D+06	6005350.990	6005351.143	-0.153	1.000
78	3	2	0.17825602D+06	6005669.840	6005669.832	0.008	1.000
78	3	2	0.17826502D+06	6006577.130	6006577.300	-0.170	1.000
78	3	2	0.17828502D+06	6009537.220	6009537.192	0.028	1.000
78	3	2	0.17829402D+06	6011293.540	6011293.280	0.260	1.000
78	3	2	0.17830802D+06	6014547.620	6014547.755	-0.135	1.000
78	3	2	0.17833502D+06	6022615.340	6022615.340	0.000	1.000
78	3	2	0.17839902D+06	6051101.200	6051101.200	0.000	1.000
78	3	2	0.17842102D+06	6063905.420	6063905.418	0.002	1.000
78	3	2	0.17843602D+06	6073510.070	6073510.073	-0.003	1.000
78	3	2	0.17851502D+06	6135616.300	6135616.256	0.044	1.000
78	3	2	0.17851602D+06	6136524.810	6136524.803	0.007	1.000
78	3	2	0.17851802D+06	6138350.980	6138350.962	0.018	1.000
78	3	2	0.17852202D+06	6142039.400	6142039.513	-0.113	1.000
78	3	2	0.17852302D+06	6142969.090	6142969.192	-0.102	1.000
78	3	2	0.17852602D+06	6145776.070	6145776.194	-0.124	1.000
78	3	2	0.17852702D+06	6146717.780	6146717.809	-0.029	1.000
78	3	2	0.17853702D+06	6156299.130	6156298.991	0.139	1.000
78	3	2	0.17853902D+06	6158251.410	6158251.134	0.276	1.000
78	3	2	0.17854302D+06	6162191.330	6162191.220	0.110	1.000
78	3	2	0.17855002D+06	6169200.930	6169200.901	0.029	1.000
78	3	2	0.17855102D+06	6170214.210	6170214.156	0.054	1.000
78	3	2	0.17855602D+06	6175324.840	6175324.815	0.025	1.000
78	3	2	0.17856202D+06	6181555.000	6181555.034	-0.034	1.000
78	3	2	0.17856402D+06	6183655.360	6183655.328	0.032	1.000
78	3	2	0.17856702D+06	6186827.660	6186827.801	-0.141	1.000
78	3	2	0.17857102D+06	6191098.870	6191098.817	0.053	1.000
78	3	2	0.17857302D+06	6193251.790	6193251.887	-0.097	1.000
78	3	2	0.17857502D+06	6195416.660	6195416.642	0.018	1.000
78	3	2	0.17857602D+06	6196503.190	6196503.397	-0.207	1.000
78	3	2	0.17857802D+06	6198685.530	6198685.658	-0.128	1.000
78	3	2	0.17858202D+06	6203084.970	6203085.112	-0.142	1.000
78	3	2	0.17858602D+06	6207531.070	6207531.052	0.018	1.000
78	3	2	0.17858802D+06	6209771.360	6209771.419	-0.059	1.000
78	3	2	0.17859902D+06	6222300.110	6222299.995	0.115	1.000
78	3	2	0.17860202D+06	6225777.460	6225777.345	0.115	1.000
78	3	2	0.17861202D+06	6237554.900	6237554.698	0.202	1.000
78	3	2	0.17861402D+06	6239944.330	6239944.440	-0.110	1.000
78	3	2	0.17861702D+06	6243550.470	6243550.383	0.087	1.000
78	3	2	0.17861802D+06	6244758.230	6244758.060	0.170	1.000
78	3	2	0.17862102D+06	6248398.230	6248398.093	0.137	1.000
78	3	2	0.17862302D+06	6250839.050	6250838.957	0.093	1.000
78	3	2	0.17862502D+06	6253290.980	6253291.136	-0.156	1.000
78	3	2	0.17862702D+06	6255754.410	6255754.635	-0.225	1.000
78	3	2	0.17862802D+06	6256990.510	6256990.616	-0.106	1.000
78	3	2	0.17863402D+06	6264465.420	6264465.392	0.028	1.000
78	3	2	0.17863602D+06	6266979.530	6266979.431	0.099	1.000
78	3	2	0.17863702D+06	6268240.750	6268240.649	0.101	1.000
78	3	2	0.17863802D+06	6269504.530	6269504.681	-0.151	1.000
78	3	2	0.17864202D+06	6274588.560	6274588.743	-0.183	1.000
78	3	2	0.17864602D+06	6279717.640	6279717.474	0.166	1.000
78	3	2	0.17865102D+06	6286190.900	6286190.964	-0.064	1.000
78	3	2	0.17865202D+06	6287493.900	6287493.984	-0.084	1.000
78	3	2	0.17865502D+06	6291419.830	6291419.655	0.175	1.000
78	3	2	0.17866002D+06	6298017.560	6298017.673	-0.113	1.000

Table 11 (Cont.)

78	3	2	0.17856102D+06	6299345.610	6299345.543	0.067	1.000
78	3	2	0.17866902D+06	6310067.420	6310067.332	0.088	1.000
78	3	2	0.17867202D+06	6314133.180	6314133.158	0.022	1.000
78	3	2	0.17867302D+06	6315493.860	6315493.889	-0.029	1.000
78	3	2	0.17867502D+06	6318223.510	6318223.519	-0.009	1.000
78	3	2	0.17867802D+06	6322338.250	6322338.377	-0.127	1.000
78	3	2	0.17868102D+06	6326477.650	6326477.662	-0.012	1.000
78	3	2	0.17868302D+06	6329250.680	6329250.720	-0.040	1.000
78	3	2	0.17868602D+06	6333430.650	6333430.576	0.074	1.000
78	3	2	0.17868902D+06	6337634.670	6337634.713	-0.043	1.000
78	3	2	0.17869402D+06	6344695.460	6344695.393	0.067	1.000
78	3	2	0.17870102D+06	6354692.540	6354692.832	0.008	1.000
78	3	2	0.17873002D+06	6397493.770	6397493.795	-0.025	1.000
78	3	2	0.17876302D+06	6448855.580	6448855.525	0.055	1.000
78	3	2	0.17877702D+06	6471481.090	6471481.162	-0.072	1.000
78	3	2	0.17877802D+06	6473116.090	6473116.057	0.033	1.000
78	3	2	0.17878102D+06	6478035.800	6478035.676	0.124	1.000
78	3	2	0.17879002D+06	6492928.290	6492928.420	-0.130	1.000
78	3	2	0.17879502D+06	6501288.400	6501288.486	-0.086	1.000
78	3	2	0.17880103D+06	6511401.420	6511401.428	-0.008	1.000
78	3	2	0.17880403D+06	6516490.930	6516490.840	0.090	1.000
78	3	2	0.17880503D+06	6518192.010	6518192.170	-0.160	1.000
78	3	2	0.17880703D+06	6521602.160	6521602.121	0.039	1.000
78	3	2	0.17881003D+06	6526735.150	6526735.224	-0.074	1.000
78	3	2	0.17881103D+06	6528451.330	6528451.089	0.241	1.000
78	3	2	0.17881303D+06	6531890.010	6531890.064	-0.054	1.000
78	3	2	0.17881603D+06	6537066.610	6537066.603	0.007	1.000
78	3	2	0.17881903D+06	6542264.760	6542264.739	0.021	1.000
78	3	2	0.17882003D+06	6544002.240	6544002.257	-0.017	1.000
78	3	2	0.17882103D+06	6545742.230	6545742.173	0.057	1.000
78	3	2	0.17882203D+06	6547484.430	6547484.468	-0.038	1.000
78	3	2	0.17882303D+06	6549229.190	6549229.148	0.042	1.000
78	3	2	0.17882403D+06	6550976.250	6550976.209	0.041	1.000
78	3	2	0.17882703D+06	6556231.600	6556231.712	-0.112	1.000
78	3	2	0.17882903D+06	6559747.270	6559747.265	0.005	1.000
78	3	2	0.17883203D+06	6565038.410	6565038.367	0.043	1.000
78	3	2	0.17883503D+06	6570350.840	6570350.780	0.060	1.000
78	3	2	0.17883603D+06	6572126.260	6572126.300	-0.040	1.000
78	3	2	0.17883703D+06	6573904.160	6573904.173	-0.013	1.000
78	3	2	0.17883803D+06	6575684.350	6575684.392	-0.042	1.000
78	3	2	0.17885103D+06	6597229.710	6597229.722	-0.012	1.000
78	3	2	0.17886403D+06	6622788.340	6622788.213	0.127	1.000
78	3	2	0.17886803D+06	6630173.320	6630173.292	0.028	1.000
78	3	2	0.17887003D+06	6633879.390	6633879.534	-0.144	1.000
78	3	2	0.17887703D+06	6646922.800	6646922.837	-0.037	1.000
78	3	2	0.17887903D+06	6650669.820	6650669.848	-0.028	1.000
78	3	2	0.17888003D+06	6652546.760	6652546.735	0.025	1.000
78	3	2	0.17888103D+06	6654425.920	6654425.864	0.056	1.000
78	3	2	0.17888203D+06	6656307.250	6656307.240	0.010	1.000
78	3	2	0.17888303D+06	6658190.800	6658190.857	-0.057	1.000
78	3	2	0.17889303D+06	6677150.060	6677150.064	-0.004	1.000
78	3	2	0.17889503D+06	6680968.570	6680968.621	-0.051	1.000
78	3	2	0.17889603D+06	6682881.250	6682881.213	0.037	1.000
78	3	2	0.17889803D+06	6686713.060	6686713.024	0.036	1.000
78	3	2	0.17890003D+06	6690553.790	6690553.681	0.109	1.000
78	3	2	0.17890303D+06	6696331.110	6696331.139	-0.029	1.000
78	3	2	0.17890403D+06	6698261.320	6698261.356	-0.036	1.000
78	3	2	0.17890503D+06	6700193.690	6700193.766	-0.076	1.000
78	3	2	0.17891003D+06	6709888.720	6709888.635	0.085	1.000
78	3	2	0.17891503D+06	6719637.960	6719637.934	0.026	1.000
78	3	2	0.17892003D+06	6729441.310	6729441.377	-0.067	1.000

Table 11 (Cont.)

78	3	2	0.17896703D+06	6824185.410	6824185.464	-0.054	1.000
78	3	2	0.17896803D+06	6826251.250	6826251.174	0.076	1.000
78	3	2	0.17897903D+06	6849107.980	6849107.995	-0.018	1.000
78	3	2	0.17898003D+06	6851198.000	6851198.022	-0.022	1.000
78	3	2	0.17898303D+06	6857480.090	6857480.114	-0.024	1.000
78	3	2	0.17898503D+06	6861678.290	6861678.193	0.097	1.000
78	3	2	0.17898803D+06	6867990.300	6867990.300	0.000	1.000
78	3	2	0.17899103D+06	6874320.320	6874320.317	0.003	1.000
78	3	2	0.17899403D+06	6880668.090	6880668.193	-0.103	1.000
78	3	2	0.17899703D+06	6887033.930	6887033.850	0.080	1.000
78	3	2	0.17900803D+06	6910525.760	6910525.826	-0.066	1.000
78	3	2	0.17901403D+06	6923438.950	6923438.955	-0.005	1.000
78	3	2	0.17901503D+06	6925897.880	6925897.909	-0.029	1.000
78	3	2	0.17902203D+06	6940764.520	6940764.425	0.095	1.000
78	3	2	0.17902403D+06	6945114.900	6945114.943	-0.043	1.000
78	3	2	0.17902703D+06	6951655.060	6951655.015	0.045	1.000
78	3	2	0.17902903D+06	6956024.520	6956024.559	-0.039	1.000
78	3	2	0.17903003D+06	6958212.060	6958212.173	-0.113	1.000
78	3	2	0.17903103D+06	6960401.770	6960401.678	0.092	1.000
78	3	2	0.17903203D+06	6962593.090	6962593.073	0.017	1.000
78	3	2	0.17903303D+06	6964786.390	6964786.353	0.037	1.000
78	3	2	0.17903803D+06	6975781.010	6975780.987	0.023	1.000
78	3	2	0.17903903D+06	6977985.520	6977985.539	-0.019	1.000
78	3	2	0.17904603D+06	6993469.630	6993469.658	-0.028	1.000
78	3	2	0.17905303D+06	7009044.670	7009044.608	0.062	1.000
78	3	2	0.17905603D+06	7015747.100	7015747.196	-0.096	1.000
78	3	2	0.17905803D+06	7020224.760	7020224.739	0.021	1.000
78	3	2	0.17906203D+06	7029201.810	7029201.714	0.096	1.000
78	3	2	0.17906303D+06	7031450.480	7031450.520	-0.040	1.000
78	3	2	0.17906703D+06	7040463.740	7040463.805	-0.065	1.000
78	3	2	0.17907403D+06	7056306.450	7056306.453	-0.003	1.000
78	3	2	0.17907903D+06	7067676.380	7067676.369	0.011	1.000
78	3	2	0.17910603D+06	7129834.450	7129834.346	0.104	1.000
78	3	2	0.17910803D+06	7134488.990	7134488.945	0.045	1.000
78	3	2	0.17911003D+06	7139150.450	7139150.380	0.070	1.000
78	3	2	0.17911203D+06	7143818.480	7143818.639	-0.159	1.000
78	3	2	0.17911303D+06	7146155.190	7146155.328	-0.138	1.000
78	3	2	0.17911503D+06	7150833.880	7150833.794	0.086	1.000
78	3	2	0.17914203D+06	7214648.910	7214648.903	0.007	1.000
78	3	2	0.17915903D+06	7255442.430	7255442.414	0.016	1.000
78	3	2	0.17916003D+06	7257856.530	7257856.532	-0.002	1.000
78	3	2	0.17916303D+06	7265108.450	7265108.431	0.019	1.000
78	3	2	0.17917303D+06	7289384.040	7289384.128	-0.088	1.000
78	3	2	0.17917503D+06	7294258.160	7294258.098	0.062	1.000
78	3	2	0.17917603D+06	7296697.420	7296697.415	0.005	1.000
78	3	2	0.17917803D+06	7301580.700	7301580.742	-0.042	1.000
78	3	2	0.17918403D+06	7316267.920	7316267.896	0.024	1.000
78	3	2	0.17919103D+06	7333472.980	7333472.940	0.040	1.000
78	3	2	0.17919303D+06	7338402.380	7338402.422	-0.042	1.000
78	3	2	0.17919503D+06	7343337.990	7343337.988	0.002	1.000
78	3	2	0.17920803D+06	7375566.200	7375566.258	-0.058	1.000
78	3	2	0.17921403D+06	7390525.970	7390525.976	-0.006	1.000
78	3	2	0.17922803D+06	7425637.960	7425637.778	0.182	1.000
78	3	2	0.17923003D+06	7430677.110	7430677.016	0.094	1.000
78	3	2	0.17923103D+06	7433198.750	7433198.797	-0.047	1.000
78	3	2	0.17923403D+06	7440772.680	7440772.770	-0.090	1.000
78	3	2	0.17925103D+06	7483933.730	7483933.847	-0.117	1.000
78	3	2	0.17926803D+06	7527498.540	7527498.493	0.047	1.000

6. LASER SYSTEM ACCURACY ASSESSMENT

The accuracy of SAO's prototype SAO laser ranging system on Mt. Hopkins was investigated using the data available in 1978. During that year, laser tracking data on Lageos were available from the SAO lasers at Arequipa, Peru (7907); Natal, Brazil (7929); and Orroral Valley, Australia (7943). In addition, the lasers operated by NASA at Goddard Space Flight Center, Maryland (7063); Owens Valley, California (7084); Haystack Observatory, Massachusetts (7091); Goldstone, California (7085); San Diego, California (7061); Bermuda Island (7067); and Grand Turk Island (7068) contributed laser data.

In July 1978 a pulse chopper was installed in the Mt. Hopkins laser that reduced the output pulse width from 25 nsec to 7 nsec and the output power from 7 J to less than 1 J. The pulse chopper was the third stage of upgrading the SAO laser systems to decimeter accuracy. Earlier modifications included the increase of the pulse repetition frequency (PRF) to 8 pulses per minute and the use of a waveform digitizer to sample the transmitted and received pulse. The result of these three enhancements to the SAO system provides a ranging accuracy to Lageos of 10 cm. At this time (December 1980), all four SAO lasers have been upgraded and are operating at this level of accuracy.

The data taken in 1978 were used to investigate the success of the pulse chopper in improving overall system performance by reducing system noise and decreasing the systematic errors in ranging. The SAO philosophy has been to concentrate on reducing the systematic errors. SAO believes that with suitable data averaging the random component can essentially be eliminated from a geophysical measurement. Use of "normal" points, spline fits, or massive amounts of data are just a few of the approaches that can be used to deal with the random component. Therefore, when evaluating the SAO systems one would expect to find a larger random component in the error model and this random component must be found separately from the systematic part. Introduction of the pulse chopper had the expected effect of reducing the random error and decreasing the systematic error which was graphically demonstrated by analyzing the data taken before and after installation of the pulse chopper.

The SAO laser data were examined by calculating three quantities:

- 1) The random noise for each pass,
- 2) The systematic "mean" error for each pass, and
- 3) The interstation baseline from translocation events, which has been shown to be independent of noise but dependent on biases (Latimer and Gaposchkin, 1975; Gaposchkin and Zerbini,

1980).

These three calculations were derived from a precision orbit determination based on all the available data. The accuracy of the present orbit theory and other geophysical parameters such as the earth's gravity field, station coordinates, etc., for Lageos is approximately 0.50 m., (Gaposchkin, 1978, Section 3; Tapley and Schutz, 1980). The results presented here for 1978 are entirely consistent with this.

Nine arcs were selected from the available data. These arcs were chosen to include all the possible translocation events of the Mt. Hopkins laser with other laser data. A translocation event occurs when at least some observations from two stations cover a common part of the orbit. A long arc orbit was computed for each of these arcs using all the available data. The overall results of these eight arcs are given in Table 12. The overall fit and the fit to the data for each station is given for each station.

Table 12.

EPOCH MJD	σ (m)	n	L (days)	PERU σ (m) n	MT. HOPKINS σ (m) n	BRAZIL σ (m) n	ORRORAL σ (m) n	GSFC σ (m) n	OWENS VALLEY σ (m) n	HAYSTACK σ (m) n
43561 2/21/78	1.04	3126	9	1.12 2190	1.45 201			1.19 115	0.78 330	0.65 221
43584 3/16/80	0.62	3706	2	1.10 672				0.43 864	0.71 400	
43586 3/18/80	1.26	1821	2	1.25 381				0.35 1119	0.44 297	
43592 3/24/80	0.98	3522	2	1.52 339					0.50 1185	0.54 758
43597 3/29/80	0.47	3536	2	0.94 32			1.11 30	0.34 468	0.82 97	0.55 939
43598 3/30/80	1.31	4433	2	2.34 41	2.71 95			0.66 1550		0.66 2732
43749 8/28/80	0.49	2593	4	0.83 509	1.16 3	1.31 72	1.17 681			
43776 9/24/80	0.69	3820	8	1.09 1023	1.29 96		0.86 492	0.19 463		
43810 11/3/80	0.83	200	1	1.07 89	0.61 82					

TABLE 12
(cont.)

EPOCH MJD	GOLD STONE				SAN DIEGO		BERMUDA		GRAND TURK	
	σ (m)	n	L (days)	σ (m)	n	σ (m)	n	σ (m)	n	σ (m)
43561 2/21/78	1.04	3126	9	7085	7061	7067	7068			
43584 3/16/80	0.62	3706	2	0.46	1770					
43586 3/18/80	1.26	1821	2	0.42	24					
43592 3/24/80	0.98	3522	2	0.28	1240					
43597 3/29/80	0.47	3536	2	0.41	1970					
43598 3/30/80	1.31	4433	2	0.31	15					
43749 8/28/80	0.49	2593	4			0.14	1328			
43776 9/24/80	0.69	3820	8			0.38	1524	0.39	113	0.30 108
43810 11/3/80	0.83	200	1			0.65	29			

The data noise, or random error, can be estimated from the observation residuals of the long arc fits. The long arc fit satisfactorily calculates a range with an accuracy of better than 1 m. Table 12 shows, for example, the root mean square (rms) residuals for all the data from a station in each arc. The long arc successfully models the gross satellite motion and the residuals for each pass can be analyzed in terms of systematic and random components. The noise for each pass of data was calculated. This was done by calculating, by least squares, a range and time bias using the residuals for each pass of data. The residuals of these residuals is assumed to be the noise or random component of the observation error. The rms after this fit is given in Tables 13a, 13b, ..., 13k. Also given are the number of data points kept and rejected in each pass. The rms for the NASA stations ranges from 8 cm to 44 cm with most of the passes between 10 and 20 cm. The SAO data generally range between 60 and 170 cm. After installation of the pulse chopper at Mt Hopkins (7921) the mean errors range between 27 and 63 cm, with the majority less than 50 cm.

Table 13a
Range noise summary for Epoch 43561

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7091	7603901	43557.4406372	0.085	11	0
2	7091	7603901	43560.4271419	0.080	42	0
3	7091	7603901	43561.0785655	0.102	42	0
4	7091	7603901	43561.2235887	0.134	17	0
5	7091	7603901	43561.3636928	0.105	39	0
6	7091	7603901	43561.5056257	0.079	61	1
7	7091	7603901	43563.1092368	0.029	9	0
8	7063	7603901	43562.1653480	0.137	111	14
9	7084	7603901	43560.2827901	0.370	45	20
10	7084	7603901	43560.5572924	20.414	605	561
11	7921	7603901	43557.1632182	1.080	43	0
12	7921	7603901	43557.3067044	0.678	12	0
13	7921	7603901	43557.4346593	0.969	59	0
14	7921	7603901	43558.0946419	0.991	121	0
15	7921	7603901	43559.1859600	0.817	165	0
16	7921	7603901	43559.4633919	0.794	46	0
17	7921	7603901	43560.1279739	0.764	232	0
18	7921	7603901	43560.2782344	1.318	22	2
19	7921	7603901	43560.5494150	0.817	157	0
20	7921	7603901	43561.0725063	0.599	264	0
21	7921	7603901	43561.2200760	1.227	98	0
22	7921	7603901	43561.4974197	0.824	145	0
23	7921	7603901	43562.1808398	1.339	44	0
24	7921	7603901	43563.1042774	0.998	276	0
25	7921	7603901	43563.2541037	1.213	134	0
26	7921	7603901	43563.3949892	1.689	54	0
27	7921	7603901	43563.5331835	0.741	134	0
28	7921	7603901	43564.1958572	1.112	185	0
29	7943	7603901	43558.4371755	0.858	46	0
30	7943	7603901	43561.4217206	1.147	28	0
31	7929	7603901	43561.8754578	1.519	87	0
32	7929	7603901	43563.9199891	1.482	39	0
33	7929	7603901	43564.3158224	0.852	5	0
34	7929	7603901	43564.8650412	0.856	70	0
34 PASSES KEEP 3448 REJECT 598 OBS						
END OF RUN						

Table 13b
Range noise summary for epoch 43576

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7091	7603901	43574.2172808	0.223	24	4
2	7091	7603901	43574.3620146	0.149	110	10
3	7091	7603901	43575.1576975	38.158	5	7
4	7091	7603901	43575.3055563	0.000	1	6
5	7091	7603901	43576.3895030	0.171	21	11
6	7091	7603901	43577.0536002	0.144	237	13
7	7085	7603901	43574.2156373	0.141	160	35
8	7085	7603901	43574.5061465	0.377	109	24
9	7085	7603901	43576.1104405	0.180	10	1
10	7085	7603901	43577.4702785	0.342	393	84
11	7085	7603901	43578.1361466	0.344	164	17
12	7921	7603901	43575.4402148	1.257	85	0
13	7921	7603901	43576.1025412	1.343	194	0
14	7921	7603901	43576.3850933	1.591	71	0
15	7921	7603901	43576.5306662	1.126	145	0
16	7921	7603901	43588.1928179	1.234	77	0
17	7907	7603901	43575.4153884	1.309	84	0
18	7907	7603901	43576.3561003	1.419	50	0
19	7929	7603901	43576.9106144	1.565	75	0
20	7929	7603901	43577.2949891	0.689	102	0
20 PASSES KEEP 2117 REJECT 212 OBS						
END OF RUN						

Table 13c
Range noise summary for epoch 43584

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7063	7603901	43583.0002090	0.401	440	5
2	7063	7603901	43583.1405563	0.126	401	51
3	7084	7603901	43583.4324197	0.382	192	8
4	7084	7603901	43584.3846072	0.314	208	14
5	7085	7603901	43583.1467253	0.376	1120	84
6	7085	7603901	43584.2394336	0.279	24	2
7	7085	7603901	43584.3731489	0.329	489	21
8	7921	7603901	43583.1459424	1.328	171	0
9	7921	7603901	43583.4256286	1.205	20	0
10	7921	7603901	43584.0912542	0.954	187	0
11	7921	7603901	43584.2366535	1.197	93	0
12	7921	7603901	43584.3714626	1.195	80	0
12 PASSES		KEEP 3425		REJECT 185	OBS	
END OF RUN						

Table 13d
Range noise summary for epoch 43586

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7063	7603901	43585.0402901	0.192	556	34
2	7063	7603901	43585.1743526	0.125	308	31
3	7063	7603901	43585.3081721	0.219	219	19
4	7084	7603901	43586.4095725	0.421	295	44
5	7085	7603901	43585.4554174	0.208	24	7
6	7921	7603901	43585.1820528	1.171	191	3
7	7921	7603901	43585.4534938	1.042	188	0
7 PASSES						
KEEP 1781 REJECT 138 OBS						
END OF RUN						

Table 13e
Range noise summary for epoch 43592

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7091	7603901	43591.1206258	0.130	70	20
2	7091	7603901	43592.0646535	0.000	1	14
3	7091	7603901	43592.2071420	0.166	498	198
4	7091	7603901	43592.3570493	0.117	181	45
5	7084	7603901	43591.1373155	0.407	366	25
6	7084	7603901	43591.2771072	0.372	168	3
7	7084	7603901	43591.4119915	0.438	313	7
8	7084	7603901	43592.2284150	0.351	326	14
9	7085	7603901	43591.1372461	0.206	906	27
10	7085	7603901	43591.2791790	0.101	72	4
11	7085	7603901	43591.4153595	0.000	0	7
12	7085	7603901	43591.4317368	0.000	4	0
13	7085	7603901	43592.3669105	0.137	5	0
14	7921	7603901	43591.4087033	1.574	68	0
15	7921	7603901	43592.2228537	1.447	74	0
16	7921	7603901	43592.3574885	1.365	41	0
16 PASSES		KEEP 3093	REJECT 364	OBS		
END OF RUN						

Table 13f
Range noise summary for epoch 43596

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7091	7603901	43595.1928248	0.222	140	23
2	7091	7603901	43595.3309266	0.140	179	19
3	7091	7603901	43595.9942599	0.220	207	129
4	7091	7603901	43596.2830215	0.138	405	48
5	7063	7603901	43596.0007530	0.127	199	10
6	7063	7603901	43596.1334614	0.124	79	7
7	7063	7603901	43596.2759498	0.165	183	23
8	7084	7603901	43595.2063086	0.522	21	0
9	7084	7603901	43595.3445377	0.401	75	5
10	7085	7603901	43595.1984961	0.166	471	25
11	7085	7603901	43595.9983225	0.000	4	0
12	7085	7603901	43596.1399197	0.146	623	34
13	7085	7603901	43596.2872577	0.125	158	26
14	7921	7603901	43595.4730262	1.478	143	0
15	7943	7603901	43595.7584417	1.365	83	0
15 PASSES		KEEP 2970	REJECT 349	OBS		
END OF RUN						

Table 13g
Range noise summary for epoch 43598

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7091	7603901	43597.0881257	0.100	351	14
2	7091	7603901	43597.2164591	0.149	898	72
3	7091	7603901	43597.3551859	0.153	834	157
4	7091	7603901	43598.0163433	0.135	217	22
5	7091	7603901	43598.1603480	0.178	346	33
6	7063	7603901	43597.0749429	0.187	426	42
7	7063	7603901	43597.2213434	0.175	320	41
8	7063	7603901	43597.3553480	0.193	410	79
9	7063	7603901	43598.0185772	0.222	211	27
10	7063	7603901	43598.3072230	0.236	146	41
11	7085	7603901	43597.0888896	0.075	13	20
12	7085	7603901	43597.2497809	0.000	2	3
12 PASSES	KEEP	4174	REJECT	551	OBS	
END OF RUN						

Table 13h
Range noise summary for epoch 43749

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7061	7603901	43749.2441211	0.086	1036	29
2	7061	7603901	43750.3441906	0.069	256	7
3	7063	7603901	43750.0385888	0.098	5	2
4	7067	7603901	43750.0381604	27.843	8	2
5	7834	7603901	43748.8059185	0.284	46	1
6	7834	7603901	43749.8955795	0.306	24	1
7	7921	7603901	43749.2494166	0.307	36	0
8	7943	7603901	43747.5192947	0.789	57	0
9	7943	7603901	43747.6392600	1.135	257	0
10	7943	7603901	43749.5257183	1.525	195	1
11	7943	7603901	43749.6729406	1.310	215	1
12	7907	7603901	43748.1261512	1.009	283	0
13	7907	7603901	43748.2817959	1.408	51	0
14	7907	7603901	43749.0745898	0.977	156	0
15	7907	7603901	43749.2317946	1.232	113	0
16	7907	7603901	43750.1819682	1.155	21	0
17	7929	7603901	43747.9817079	1.865	84	0
18	7929	7603901	43749.0800597	0.000	3	8
18 PASSES	KEEP	2846	REJECT	52	OBS	
END OF RUN						

Table 13i
Range noise summary for epoch 43776

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7061	7603901	43772.2599429	0.132	701	1
2	7061	7603901	43772.7910076	0.081	129	0
3	7061	7603901	43773.7275123	0.095	81	0
4	7061	7603901	43774.2986813	0.079	104	0
5	7061	7603901	43778.2127785	0.113	504	4
6	7063	7603901	43772.1126860	0.072	459	20
7	7067	7603901	43774.1491558	0.128	55	1
8	7067	7603901	43777.1272692	0.093	58	1
9	7068	7603901	43777.1162623	0.242	107	1
10	7833	7603901	43778.8529752	0.172	15	0
11	7834	7603901	43775.8912162	0.049	19	1
12	7834	7603901	43776.8217279	1.288	15	6
13	7921	7603901	43772.1119162	0.273	20	0
14	7921	7603901	43772.2677299	0.332	20	0
15	7921	7603901	43775.2418664	0.350	9	0
16	7921	7603901	43776.1863088	0.632	8	0
17	7921	7603901	43779.1521072	1.541	45	0
18	7943	7603901	43774.4291871	0.839	229	0
19	7943	7603901	43774.5738954	0.874	276	0
20	7907	7603901	43772.0842253	0.994	198	0
21	7907	7603901	43772.2367426	1.120	83	0
22	7907	7603901	43773.0416037	1.313	50	0
23	7907	7603901	43773.1767600	0.964	82	1
24	7907	7603901	43774.1183387	1.361	31	0
25	7907	7603901	43775.2111344	1.331	83	0
26	7907	7603901	43776.0107855	0.953	85	0
27	7907	7603901	43776.1532357	1.260	90	0
28	7907	7603901	43777.0987212	0.853	236	1
29	7907	7603901	43778.0395198	0.964	204	1
29 PASSES	KEEP	3996	REJECT	38	OBS	
END OF RUN						

Table 13j
Range noise summary for epoch 43810

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7061	7603901	43809.2209730	0.181	29	0
2	7921	7603901	43809.0762379	0.585	22	0
3	7921	7603901	43809.2182531	0.504	21	0
4	7921	7603901	43810.1627842	0.545	39	0
5	7907	7603901	43809.0462038	0.869	48	0
6	7907	7603901	43809.9871766	1.303	41	0
6 PASSES	KEEP	200	REJECT	0	OBS	
END OF RUN						

Table 13k
Range noise summary for epoch 43814

PASS	STATION	SATELLITE	TIME	SIGMA	GOOD	BAD
1	7921	7603901	43814.0745898	0.470	14	0
2	7943	7603901	43814.3778033	0.661	23	0
3	7907	7603901	43814.0567946	1.062	38	0
4	7929	7603901	43813.9083560	1.351	86	0
4 PASSES	KEEP	161	REJECT	0	OBS	
END OF RUN						

The systematic error or mean error for a selection of Mt. Hopkins (7921) Lageos passes is given in Table 10. The mean error is an estimate of the bias. Recall that this is only an upper bound since the mean error can also contain some long-period orbital error. The systematic error of the SAO data significantly improves after installation of the pulse chopper in August 1978 (after Epoch 43780). Evidently, the SAO laser system, when fitted with a pulse chopper, obtains decimeter accuracy data, with a noise level larger by a factor of five. One can note with pleasure that even without the pulse chopper the systematic error was generally less than half a meter and tended to be negative. Evidently care in calibration of the system, as described by Pearlman et al. (1978), was effective in controlling systematic errors.

Table 14 Systematic and random errors in Lageos ranging
from Mt. Hopkins (7921)
estimated from long arc orbits.

Epoch MJD	Systematic Error (m)	Random Error (m)	n points
43583.145	-0.94	1.12	138
43583.425	-0.29	0.87	17
43584.091	-0.39	0.96	185
43584.237	0.26	1.16	91
43584.371	0.62	0.99	70
43584.509	-0.34	0.85	178
43585.182	-0.04	1.33	194
43585.453	-0.37	1.10	187
43591.408	-1.25	1.58	66
43592.224	-0.62	1.49	72
43592.357	0.17	1.35	41
43592.499	-0.31	1.29	160
43749.249	-1.87	0.30	34
(Pulse Chopper Installed)			
43809.089	-0.01	0.56	22
43809.218	-0.05	0.58	21
43810.162	-0.02	0.54	39

The estimate of systematic error from long arc orbits is, of course, open to criticism. Model errors in the orbit theory, e.g., geopotential and station coordinate errors, can degrade the comparison or by chance make the comparison appear more favorable than warranted. Also, the constants of the orbital motion are not known a priori and must be determined from observations. The observations used for this, in this case contain those being studied. The constants of the orbit, the orbital elements, can absorb the errors being studied. In addition, other data used may have errors that are larger than expected, which will compromise the comparison. In fact, no good solution to this quandary exists. This problem always arises when there is no standard of comparison of greater accuracy to be used to assess a measurement. One then turns to various alternative methods of analysis that decrease or eliminate the influence of some or all of the corrupting influences. In this case the method of translocation (Latimer and Gaposchkin, 1975; Gaposchkin and Zerbini, 1980) is a candidate. It has the desirable benefit of eliminating some if not all the long-period orbital errors and the errors in station position by using overlapping passes of laser data from two stations that have common orbital errors. These common orbital errors can be eliminated by proper choice of analysis. The method eliminates the station coordinate errors by determining the relevant relative station position corrections from the initial model. In fact, the scheme was invented for the purpose of determining interstation baselines. Translocation is very data dependent, in that the accuracy of the result depends on the geometry of the stations and the orbit. In the data sets selected for analysis, a number of translocation events involving Mt. Hopkins and also other pairs of stations gave the opportunity to evaluate the baseline determinations of other sites and to assess the reliability of the method by comparison with results derived from other sets of data.

The capabilities of translocation have been explored and a variety of data accuracies and geometries have been discussed (Latimer and Gaposchkin, 1975; Gaposchkin and Zerbini, 1980). In the present case, it is being used to calibrate a measurement system. Therefore only data which meet certain stringent criteria will be included in the discussion. The criteria are the following:

- 1) The data from two station overlap.
- 2) At least 50 points from each station are available.
- 3) The angle between the subsatellite track and the station baseline less than 30 degrees. The translocation events satisfying these criteria are given in Table 15. The number of events is not large. Yet, in each case, the correction to the initial baseline, computed from the coordinates given in Table 7, is satisfactorily small. The uncertainty in the baseline

determination is given in brackets []. In the cases where the data from both stations were of decimeter accuracy, the corrections to the baseline length were small. For data involving Mt. Hopkins (7921) before the pulse chopper upgrading, the baseline corrections are larger, indicating the accuracy of the data is not so good. Recall that the translocation method is designed to minimize the effects of biases in ranging data; to an extent, it is successful. The baseline determinations involving this laser data are quite good. Unfortunately, no translocation events with NASA lasers occurred after the upgrading. Further work is necessary to completely validate the accuracy of the SAO laser data using scalar translocation.

Table 15 Results from selected translocation events.

Stations		Epoch	SigmaA n		SigmaB n		Delta (cm)	Angle (deg)
A	B		(cm)		(cm)			
7091	7921	43561.09	11	42	60	264	-54[18]	45.7
7063	7921	43583.16	13	401	97	86	62[28]	22.6
7063	7085	43583.16	13	401	31	374	-54[6]	32.9
7085	7921	43584.39	21	486	120	80	66[32]	9.6
7084	7921	43584.39	30	207	119	80	38[97]	15.2
7084	7085	43584.39	26	198	21	486	14[17]	32.5
7063	7921	43585.20	12	309	100	182	141[17]	16.3
7085	7921	43585.48	20	24	103	188	-16[81]	18.2
7084	7921	43591.44	31	308	147	68	165[44]	3.3
7091	7921	43592.24	14	490	119	67	101[41]	16.4
7085	7091	43595.22	12	467	15	129	1[9]	11.5
7063	7091	43596.01	12	198	11	199	-36[22]	21.3
7063	7085	43596.17	12	79	12	623	17[17]	29.3
7063	7085	43596.30	12	180	12	158	-1[7]	22.9
7085	7091	43596.30	12	158	12	396	-18[7]	29.9
7063	7091	43597.10	15	422	10	353	-13[4]	8.5
7063	7085	43597.10	15	422	7	13	19[136]	43.9
7063	7091	43598.05	18	206	12	216	-19[3]	7.4
7061	7907	43749.27	8	848	70	81	-66[19]	26.1
7068	7907	43777.13	23	106	86	237	-72[21]	21.3

5. OCEAN AND BODY TIDE DETERMINATION

Analysis of long-period satellite perturbations has continued. Results on six ocean tides and three body tide constituents were published (Gaposchkin, 1980d; Appendix A). The complete theory of tidal perturbations is published in Gaposchkin (1980c). These results were based on 6.0 years of data from Geos-1, 4.9 years of data for Geos-2, and 2.1 years of data for Lageos. In addition to the ocean tide values, the frequency dependence of the love number k_2 at the K_1 frequency and the semiannual frequency were found.

This analysis depends on proper treatment of radiation pressure perturbations, and a procedure for determining the correct value for the effective area to mass ratio (A/m) as described in Gaposchkin (1980c,d) was used. A more powerful approach would be to use the fact that there are no tidal perturbations in the semimajor axis (a) and the eccentricity (e). The observed perturbations in a and e can then be used to determine A/m .

A complete theory for direct solar radiation pressure and albedo pressure is used in analyzing the satellite data from the beginning. A simple linear correction factor is used to determine a correction to A/m and apply a change to the orbital elements. However, a and e are also affected by atmospheric drag, which also depends on A/m and an atmospheric density model. Note that the direct drag perturbations in the node (Ω) and inclination (I), the orbital elements used to determine the tides, are very small.

There is no analytical theory for atmospheric drag perturbations; numerical integration methods must be used. In this case, two orbits were calculated for each satellite: A reference orbit using the zonal harmonics of the geopotential, the attraction of the sun and moon including the body tides, and direct solar radiation pressure. The second orbit added the drag force to those enumerated above. The drag model of Jacchia (1977) was used for calculating the drag force. The drag coefficient C_d was calculated using the theory of Stirton (1962). The atmosphere was assumed to rotate with the earth. The difference between the reference orbit and the orbit including atmospheric drag was used as the drag perturbation. These perturbations are listed in Appendix B, which also includes the mean elements analyzed, and the radiation pressure perturbations.

Comparing the drag plus radiation pressure perturbations with the observed eccentricity and semimajor axis allows determination of the physical characteristics of each satellite. The effective A/m for radiation pressure and for drag must be considered independent parameters since one cannot assume the reflective properties of the satellite and the drag coefficient

are known without error. Clearly, some limit on their variation can be assumed, and used as a criterion for a satisfactory solution.

The procedure for selecting the best values of A/m for radiation pressure and drag perturbations is based on the following line of argument. First, the analysis proceeds by subtracting an approximate correction to a and e from the observed values by using a fraction of the computed perturbation. A quadratic and $\sin(w), \cos(w), \sin(2w)$, and $\cos(2w)$ terms are fit to the reduced elements. The trigonometric terms in w (the argument of perigee) are used to account for any model error in treating the long-period perturbations due to the zonal harmonics. The constant, is, of course, the mean element. The linear and quadratic terms should be zero if all phenomenon are correctly modeled and all the physical constants are known. We note from the solutions, that it is not possible to find values for A/m that will make the secular and quadratic variation in a and e all zero. Clearly, there are some, as yet unmodeled, very long-term variations of the satellite orbits. One can also choose the values of A/m to minimize the rms of the a and e variations. This choice is appealing since it ensures that the short and medium term variations are modeled as well as possible. This choice was the one adopted. The resulting long term variations in a and e are significantly different from zero. Their origin remains a puzzle and worthy of further study. The results of determining A/m in this way are given in Table 16.

The secular variation of a for the Lageos satellite has been discussed extensively (Gaposchkin, 1978, 1979, 1980a; Rubincam, 1980; Szebeheley, 1980). It is clear that the discussion described above will not contribute any further knowledge about it, and therefore refined values were not sought. The Geos-1 and Geos-2 satellites were physically identical. The excellent agreement of A/m for the radiation pressure perturbations is embarrassingly good. The drag value for Geos-1 is also in excellent agreement. The low value for the drag value of A/m for Geos-2 is in fact not disconcerting. The selected values of A/m are the minimum rms. Using $A/m=0.070$ for Geos-2 would only slightly increase the rms and could be taken as acceptable if a single value were needed. Increasing the drag value of A/m for Geos-2 would increase the secular increase of $da/dT = 1056$ cm/TAU, i.e., an unmodeled secular increase of the semimajor axis of more than 20 m in 4.9 years. This serves to point out the remarkable size of the unmodeled long-term variations of these satellite orbits. These results, in addition to the previously cited unexplained variations in the Lageos orbit, call for considerable study. It should be pointed out that the unexplained changes in the Lageos orbit have been observed to essentially reduce the semimajor axis, i.e., a reduction of the energy in the satellite. For Geos-1 and Geos-2 there are longer term variations, which for this set of data give an increase in

the semimajor axis or energy. In all three cases, there seems to be no viable suggestion as to a mechanism. Clearly, some mysteries remain in orbit analysis for future work. In any case, these values of A/m can be used for removing the effects of radiation pressure and drag for the study of tides.

Table 16. Determination of area to mass ratio from analysis of eccentricity and semimajor axis (Time is expressed in units of i.e., $T=[t-\text{Epoch}]$ where t is given in MJD. Statistical Uncertainty is given in square brackets [])

	Geos-1	Geos-2	
A/m(rad press)	0.070	0.069	cm**2/g
A/m(drag)	0.071	0.060	cm**2/g
e	(7169018[29])x10-8	(3199095[14])x10-8	
de/dT	(-196[33])x10-8	(-616[17])x10-8	TAU-1
d2e/dT2	(-215[64])x10-8	(58[32])x10-8	TAU-2
sigma e	479 x10-8	227x10-8	
a	807277020[13]	770504940[11]	cm
da/dT	3[15]	812[13]	cm/TAU
d2a/dT2	193[28]	468[25]	cm/TAU**2
sigma a	214	176	cm
EPOCH	42594.	42404.	MJD
TAU	2186/2	1790/2	days

For calculation of mean orbital elements from tracking data the position of the earth in space is determined from the published values of polar motion and UT1. The values published by the Bureau International de l'Heure are based on observations and have some uncertainty. An earlier section of this report described recent improvements in determination of pole position using laser ranging data on the Lageos satellite. Uncertainties in pole position are of no consequence for the study of long period perturbations, as they will give rise to short periodic (nearly diurnal) effects that will be averaged out in the integration time of several days used for the orbit determination. However, variations in UT1 will be absorbed in the determination of the satellite node. It is of course, for this reason that the satellite can be used to determine the length of day as described in section 4.

Analyzing the variations in the satellite node as determined from precision tracking data for information about UT1 is the next logical step in discussing these observations. The annual and semiannual variation in UT1 was chosen first because of the recent revision by BIH of historical polar motion and UT1 data, the BIH79 system. Of course, the satellite data are corrected for the BIH79 system in this analysis. Nevertheless, periodic terms with periods of 365.25 and 182.63 days were introduced into the list of parameters to be recovered from the time series of orbital elements. These are the same periods as the annual and semiannual tide perturbations. These two effects can be separated because the tidal perturbations depend on the orbital elements of the satellite where the UT1 variations are completely geometrical and will be the same for all satellites. Therefore with several satellites these effects can be separated.

Precision laser data on three satellites have been analyzed. The satellite characteristics are given in Table 17; the data analyzed are summarized in Table 18. These data were provided by the Smithsonian Astrophysical Observatory, the National Aeronautics and Space Administration, and the Centre National d'Etude Spatiales. The mean elements are computed with respect to the parameters given in Table 19, and the initial ocean tide parameters are given in Table 20. The mean elements are listed in Appendix B.

Table 17 Satellite characteristics

Satellite Name	Number	Inc (deg)	ecc	a (Mm)	$\dot{\omega}$ (deg/day)	$\dot{\Omega}$ (deg/day)
Geos-1	6508901	59.37	0.0716	8.0736	0.6553	-2.247
Geos-2	6800201	105.82	0.0319	7.7090	-1.6190	1.402
Lageos	7603901	109.86	0.0045	12.2712	-0.2158	0.3425

Table 18 Summary of satellite data

Satellite	Dates (MJD)	Interval (Days) (Years)		$\sigma_{\dot{\Omega}}$ μ°	$\sigma_{\dot{I}}$ μ°
Geos-1	41501-43687	2186	6.0	65	77
Geos-2	41509-43299	1790	4.9	70	81
Lageos	42911-43832	921	2.5	22	19

Table 19 Physical parameters used in orbit calculation

Parameter	Source
Geopotential Model	GEM 10
Station Coordinates	Table 4
GM	3.986005×10^{20} cm ³ /sec ²
c	2.9979248×10^{10} cm/sec
k ₂	0.302
Ocean Tides	Table 16
Earth Albedo	$a = 0.219 + 0.410 \sin(\text{lat})^2$
Reference System	Nutation Series by Kozai and Kinoshita
Polar Motion and UT1	BIH Annual Reports

Table 20 Initial tidal parameters in reduction of mean elements

Tide		D	C (cm)
Darwin	Doodson	lms	lms
M2	255.555	0.90809	4.38 - 2.43 i
S2	273.555	0.42248	2.00 - 0.35 i
K1	165.555	-0.53011	7.70 + 2.10 i
P1	163.555	0.17543	-5.00 + 0.17 i

The reduced values of the node and inclination were fit by least squares to calculate the expected periodic perturbations as $A \cos(f \cdot t) + B \sin(f \cdot t)$. In addition, a quadratic polynomial and periodic terms corresponding to the argument of perigee (w) were fit. The polynomial accounts for the unmodeled secular and very long-period perturbations; the w and $2w$ terms account for the errors in the zonal harmonics. Table 21 lists the tides determined. The K_1 , w , and $2w$ terms were not introduced for Lageos, because the arc of data was shorter than the perturbation period. From each element and satellite a normal system of equations for the unknowns was calculated and then saved. The six normal systems were combined, eliminating undesired variables (e.g. the polynomials, w and $2w$ terms). At the point of combining the normal equations, the multiple variables associated with each tidal frequency were introduced; that is, in the normal equation for each frequency, the desired linear combination was introduced.

The formal solution parameters were chosen as follows. Of course, as will be done later, the actual corrections can be ascribed to either the ocean or body tides. For the semidiurnal tides ($m=2$), the theoretical evidence shows that the love number k_2 should be essentially constant. For the diurnal tides ($m=1$), significant resonance effects in k_2 as well as a complex ocean tide from P_1 and K_1 are expected. However, for the long-period zonal tides ($m=0$), the equilibrium theory is assumed to hold for the ocean tides (Proudman, 1960). The unknowns were therefore selected to be ocean tides for the diurnal and semidiurnal tides and the love number of the zonal tides. The solutions for the tides are given in Tables 22, 23, 24, and 25.

Table 21 Tides determined

Darwin	Doodson	D lms	Period of Perturbation(days)		
			Geos-1	Geos-2	Lageos
T2	272.556	0.02476		-2356	-158
S2	273.555	0.42248	-56	432	-280
K2	275.555	0.11498	-80	128	525
P1	163.555	0.17543	-85	-632	-221
K1	165.555	-0.53011	-160	256	
l	167.555	-0.00755	-1304		
Sa*	056.554	0.01156	365	365	365
Ssa*	057.555	0.07281	182	182	182
UT1(a)*			365	365	365
UT1(sa)*			182	182	182
w			550	-222	
2w			275	-111	

* Node only

Table 22 Semidiurnal tides
(Uncertainty given in brackets [])

Tide	l	m	(cm)		C+	e+	Schwiderski	
			a-bi		(cm)	(deg)	C+	e+
							(cm)	(deg)
T2	272.556	2 2	-0.1536 [17]	0.1374 [47]	0.1330 [30]	222 [1]	(0.0806	311)*
S2	273.555	2 2	-2.9481 [22]	-0.8783 [22]	1.9857 [14]	163 [3]	0.9290 (0.6337	314 301)**
S2	273.555	4 2	-3.5744 [1.2]	-2.8235 [1.2]	1.0185 [25]	142 [16]	0.3717	103
S2	273.555	6 2	-8.6299 [1.8]	-10.2171 [1.8]	1.6638 [21]	130 [8]	0.1724	280
K2	275.555	2 2	0.7031 [25]	-1.3342 [25]	0.9735 [16]	62 [30]	0.2601	312
K2	275.555	4 2	1.5331 [97]	-1.2703 [97]	0.4452 [21]	40 [45]	0.1041	101
K2	275.555	6 2	-1.0518 [1.3]	0.9353 [1.3]	0.1751 [22]	138 [51]	0.0483	278

* Scaled from M2 values

** Corrected for atmospheric tide.

Table 23 Diurnal tides
(Uncertainty given in brackets [])

Tide	l	m	(cm)		C+	e+	Schwiderski	
			a-bi		(cm)	(deg)	C+	e+
							(cm)	(deg)
P1 163.555	2	1	-8.8629 [31]	1.1295 [30]				
Core-Mantle Estimate			0.4630 -8.3999	1.1295	10.9419 [38]	188 [2]	0.9022	223
P1 163.555	4	1	0.6561 [63]	1.7619 [62]	1.7837 [58]	-70 [24]	0.6365	168
K1 165.555	2	1	9.4862 [40]	2.1456 [41]				
Core-Mantle Estimate			-4.2910 5.1952	2.1456	7.2565 [50]	-22 [3]	2.8170	-45
K1 165.555	4	1	0.6536 [36]	-0.8705 [35]	1.0327 [35]	53 [11]	1.9179	-16
1 167.555	2	1	0.0518 [48]	0.4069 [47]				
Core-Mantle Estimate			0.0345 0.0863	0.4071	0.5370 [61]	-78 [11]		

Table 24 Zonal tides
(Uncertainty given in brackets [])

Tide	l	m	*		k2	Q
			dk2=dk2(1-iu/[2Q])			
Sa 056.554	2	0	0.1966 [60]	0.7916 [60]		
Ocean Tide Estimate			-0.0267 0.1699	0.7916	0.4689 [60]	-0.76
Ssa 057.555	2	0	0.1039 [19]	-0.0203 [19]		
Ocean Tide Estimate			-0.0264 0.0775	-0.0203	0.3765 [19]	22 [380 to 12]

Table 25 Variations in UT1
 (Units are seconds of time
 uncertainty given in brackets [])

$$\begin{aligned} d \text{ UT1 (a)} &= \begin{matrix} -0.00523 \cos(S) & + & 0.00270 \sin(S) \\ [7] & & [7] \end{matrix} \\ d \text{ UT1 (sa)} &= \begin{matrix} 0.00330 \cos(2S) & - & 0.00415 \sin(2S) \\ [7] & & [7] \end{matrix} \end{aligned}$$

S is $2\pi 3.14159 \dots$ time in Besselian years.

The ocean tides T2, S2, K2, P1, K1, and ϕ_1 determined in this analysis are given in Tables 22, 23, and 24 as both the complex number used in the calculation, ζ , and the conventional notation of amplitude C+ and phase e+. Also given are the equivalent ocean tide parameters from a recent numerical model by Schwiderski (1979a, b). Schwiderski's model is actually the amplitude and phase for the K1, O1, P1, M2, N2, and S2 tides on a one-degree by one-degree grid, with the values of the K2 tide derived by taking $C+(K2) = 0.28 \cdot C+(S2)$ and $e+(K2) = e+(S2) - 2$ degrees. These numerical values have been used to calculate the equivalent spherical harmonic coefficients (Goad, 1980).

The semidiurnal tides do not have any theoretical complications. To evaluate the S2 ocean tide, the significant contribution of an atmospheric tide must be added. Lambeck (1975) gives the equivalent ocean tide as 0.34 cm with 158 degree phase of water which yields the combined S2 tide given in Table 22. The diurnal tides are closely connected with the frequency dependent love number k_2 . Since we can only measure a linear combination of the ocean tide and body tide (expressed in terms of the love number), we can shift the geophysical information from one to the other. The relation between dk_2 and $d\zeta$ (lms) is:

$$d\zeta \text{ (lms)} = 152 D(\text{lms}) dk_2 \text{ cm}$$

for zonal tides and:

$$d\zeta \text{ (lms)} = -176 D(\text{lms}) dk_2 \text{ cm}$$

for nonzonal tides. Using the theoretical model of Wahr (1979), we give the necessary corrections in Table 26. The corrected value of the tides is also given in Table 23.

Table 26 Equivalent ocean tide

Tide	D(lms)	k2	dk2	d ζ (lms) (cm)
K1	-0.53011	0.256	-0.046	-4.2918
P1	0.17543	0.287	-0.015	0.4631
O1	0.37694	0.298	-0.004	0.2654
1	-0.00422	0.466	0.164	0.1218
1	-0.00755	0.328	0.036	0.0345
Sa	0.01156	0.299	-0.003	-0.0053
Ssa	0.07281	0.299	-0.003	-0.0332

Comparing the satellite derived ocean tides with a recent tidal model immediately indicates that the satellite values are systematically larger in amplitude by roughly a factor of three. The admittance for each tide with respect to the numerical model is given in Table 27. The large value for the sixth degree terms for the S2 tide is due to the uncertainty of the satellite value. The very anomalous value for the second degree term for P1 is very much above the uncertainty of the determination. A similarly large value was found by Felsentreger *et al.* (1976). Therefore this value is assumed to be valid, and needs further discussion. The correction for the frequency dependent love number is quite small ($dk_2 = 0.0146$), and the modern theory (Wahr, 1979) is unlikely to be in error by such a large amount. However, the Wahr theory necessarily must assume an earth in hydrostatic equilibrium, corrected to have the correct mass and moment of inertia. To avoid this annoying omission of principle would require knowing the internal deviatoric stresses which keep the earth out of equilibrium, which we do not know. The P1 tide is a solar tide, and the solar radiation pressure should be examined. However, the findings of Felsentreger *et al.* (1976) and these results are similar and are based on quite different treatment of solar pressure perturbations. Great care has been taken in this calculation, and it is hard to see where an error could arise. One can always postulate a resonance in the ocean that is not in the tide model.

An estimate of the value of the love number k_2 at the K1 tidal frequency is made by using the admittance in Table 27 with the Schwiderski ocean tide model to estimate the ocean tide. The difference between this estimate and the value in Table 23 gives

$$k_2 = 0.2233 \text{ (at the K1 frequency)}$$

Table 27 Admittance of satellite tide values

Tide	l m	Admittance
T2	2 2	1.6501
S2	2 2	3.1335
S2	4 2	2.7401
S2	6 2	9.6508
K2	2 2	3.7428
K2	4 2	4.2767
K2	6 2	3.6253
P1	2 1	12.1280
P1	4 1	2.8024
K1	2 1	1.3906 Complex part only
K1	4 1	0.5385

The zonal tides have been calculated in terms of a correction to the complex love number. The predicted astronomical ocean tide is given in Table 28. The derived values of dk_2 in Table 23 have been corrected for the astronomical tide. Using the equilibrium value from Wahr (1979) of $k_2 = 0.299$ for long period deformation we find a love number for the semiannual deformation of 0.3765. The value of $Q = 22$ is not ridiculous. Anderson and Minster (1979) argue that a low-frequency Q is much smaller than that implied by seismic frequencies. For example, they calculate that at the Chandler frequency $Q(cw) = 26$. Smith and Dahlen (1980) give a model for the frequency dependence of Q . Using their values the minimum value for 182.63 day period is $Q(Ssa)=41.1$. This is well within the uncertainty found here where the one sigma variation of Q can be between 13 and 382, with the most likely value being $Q = 22$. The question of the frequency dependence of the love number k_2 and dissipation factor Q for long periods is still open. However, these satellite results support quite large variations of k_2 and Q with frequency.

Table 28 dk_2 Equivalent to astronomical ocean tide

Tide	ζ (lms) (cm)	$C+(lms)$ (cm)	dk_2
Annual (Sa)	0.0470 + 0i	0.1051	0.0267
Semiannual (Ssa)	0.2914 + 0i	0.6516	0.0263

The large value of k_2 for semiannual periods is supported by other evidence. For example, in calculating the momentum balance of the earth and atmosphere, Lambeck and Cazenave (1973) accounted for tidal effect on the rotation rate of the earth using a value of $k_2 = 0.29$. The agreement of the atmospheric momentum calculation and the earth rotation data would have been almost perfect had they used the value of $k_2 = 0.40$ for the semi annual and annual tides. Even so, their results were quite

satisfactory as the tides were a small effect.

The same calculation for the annual tides must be rejected for two reasons. First, Q is negative. Second, we know that the annual variation in sea level is much larger than the astronomically driven ocean tide (Lisitzin, 1974). Understanding of the global annual ocean tide is, at best, incomplete. Therefore, the satellite result would best be interpreted as an ocean tide of amplitude 2.62 cm and phase of 68 degrees if $k_2 = 0.299$, and 2.92 cm and 65 degrees if $k_2 = .3765$. Either value is quite reasonable when compared with observations given by Lisitzin (1974). The satellite result is then better interpreted in terms of an ocean tide. If significant nonastronomically driven ocean tides occur at the annual frequency, similar effects might also be expected at the semiannual frequency. The observational evidence is sparse, but it suggests there could be considerable energy at or near the semiannual frequency. One possible source of nongravitational variations of sea height is wind stress. Figure 6 shows the low-frequency wind stress (Wunch, 1980). The large annual and semiannual components in wind stress would suggest significant non gravitational sea level variations. Indeed, the large differences between observed and predicted annual tides are often attributed to winds. Figure 7 (Wunch, 1980) shows the sea-level spectrum with significantly less energy at the semiannual frequency than the annual one. These two sets of data do not allow a clear interpretation of the expected size of the nongravitational semiannual variation in sea level.

Figure 4 Low frequency wind stress on ocean

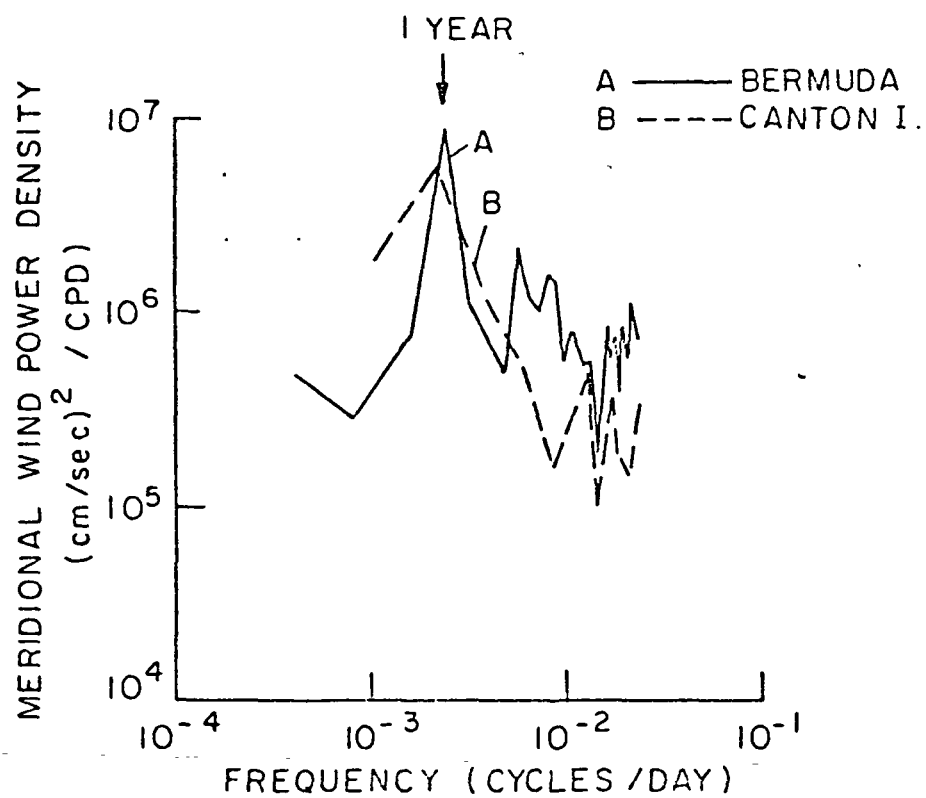
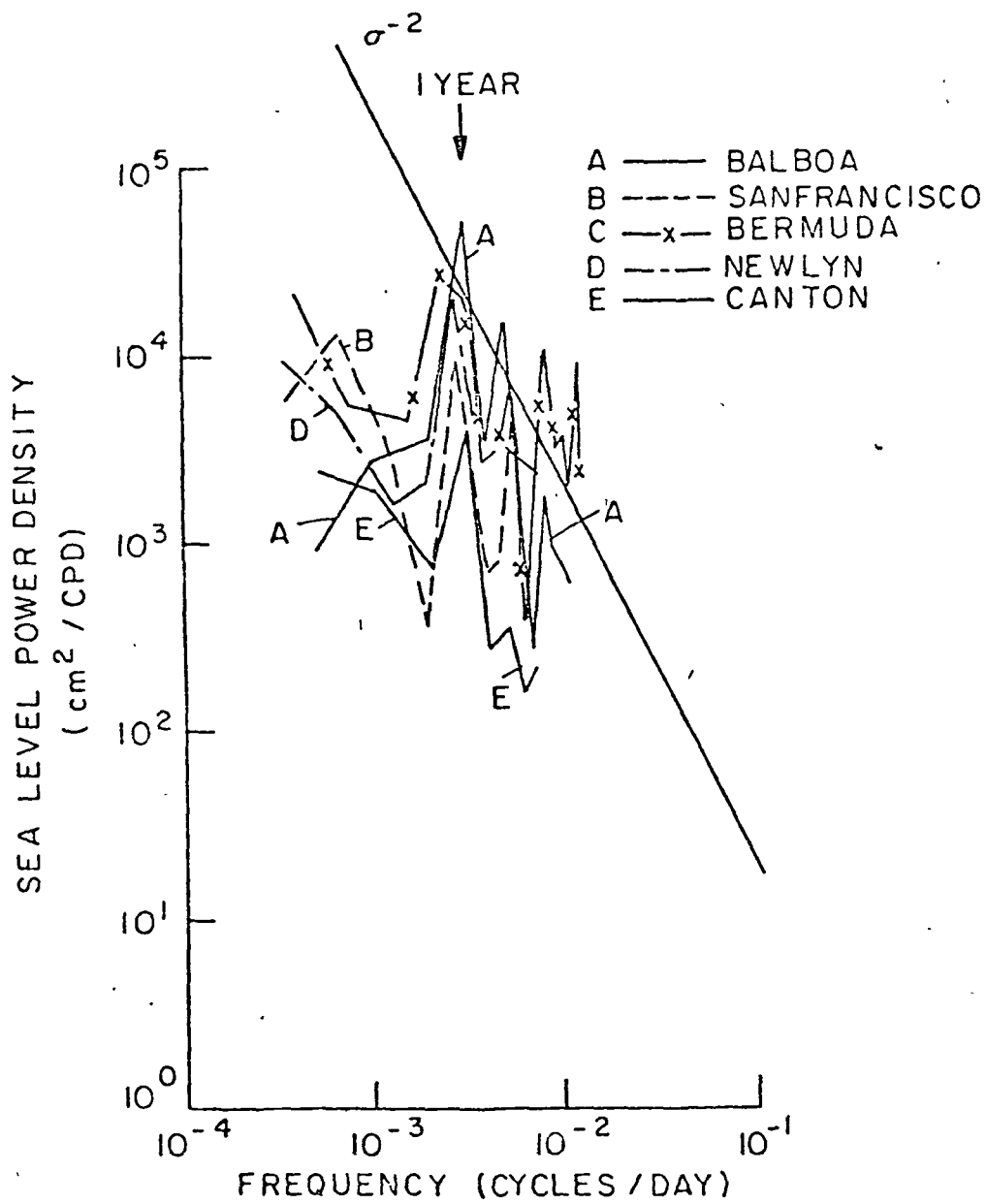


Figure 5 Sea level spectrum



8. ACCURACY OF ANALYTICAL THEORY

A number of perturbation theories are included in the general purpose orbit-determination program used for the analysis of tracking in this investigation. All of the individual perturbations have been tested separately. However, we wished to verify the overall accuracy of the combined set of analytical programs. For this purpose, a numerical integration program was used to calculate simulated (errorless) range observation data. The general purpose integration program was an Adams-type integrator with the option of variable or fixed step size, once the integration has been started. The variable-step-size used a desired accuracy as input. The program performs the integration in coordinates (x,y,z,x,y,z) . The force package allows use of an arbitrary gravity field represented in spherical harmonics, moon, sun, and tidal attraction (using the same routines for the positions as the analytical theory) radiation pressure, and a drag model based on the same physical assumptions as the analytical development.

These simulated data were used to verify the short-period perturbations. For this purpose, simulated range observations were computed for subsets of the forces. The simulated observations were used in the general orbit-determination program and the mean elements computed iteratively by least squares. This procedure avoided the problem of explicitly relating the initial conditions of the numerical integration and the mean elements used in the analytical theory. The simulated observations were created for one day, taking care to apply the same refraction, light travel time, and tidal corrections, polar motion and UTL data in both the simulation and orbit determination.

A systematic comparison of the orbital software for low earth orbiting satellites (Geos-A, and Geos-B) with these numerical integration methods is described in Gaposchkin 1979. As a result of these comparisons, improvements to the orbital theory have been made, primarily for the short period luni-solar and tidal perturbation. The objective in this investigation was to assess the accuracy of the orbital software for Lageos, as this was the primary satellite to be used here. The individual perturbations were tested first, and then combinations of perturbations to verify the interaction terms. The results are summarized in Table 29. It is clear that given the present accuracy of gravity field models, and other geodetic parameters, the theory is adequate for reducing laser tracking data. However, for future analysis if the ultimate accuracy is desired, further development is necessary.

Table 29. Accuracy of the analytical theory for Lageos

Perturbation(s)	RMS Fit
J_2	<1 cm.
$J_2 + \bar{C}_{22} + \bar{S}_{22}$	5 cm.
$J_2 + \text{Lunar} + \text{Solar} + \text{Tides}$	2 cm.
$J_2 + \text{Tesseral Harmonics through } 12, 12 + \text{Lunar} + \text{Solar} + \text{Tides}$	29 cm.

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Appendix A.

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EARTH AND OCEAN TIDES FROM LONG-TERM ANALYSIS OF SATELLITE ORBITS

E. M. Gaposchkin

Harvard-Smithsonian Center for Astrophysics

Presented at
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ABSTRACT

Precision laser tracking data on three close-earth satellites (Geos 1, Geos 2, and Lageos) are analyzed to obtain measurements of ocean tides, core-mantle resonance, and other mass displacements.

Mean elements are computed for 6.0 years for Geos 1, 4.9 years for Geos 2, and 2.1 years for Lageos. Ocean tides T_2 , S_2 , K_1 , P_1 , and ϕ_1 are measured, along with the core-mantle resonance at the K_1 and P_1 frequencies, as predicted by Molodensky. Also measured are the S_a and S_{sa} tides and radiation-pressure area-to-mass ratios.

INTRODUCTION

The motion of a close-earth satellite is perturbed by several forces, including body tides, ocean tides, and radiation pressure. From a series of observations covering several years, these perturbations can be measured and the physical parameters describing them can be deduced. Such an analysis is described here, and the results indicate that the method can be extended to give additional information.

This analysis studies the long-period perturbations of satellite orbits; the short-period perturbations are important only for computing the mean elements. All long-period perturbations must be considered in the data reduction, and in an analysis such as this, even quite small effects can be detected if the integration time is long enough. For example, radiation pressure and some long-period tides are present in the data. On the other hand, the very large effects of drag are basically orthogonal to the analysis. Although drag is important, it is easily removed without having to resort to complicated atmospheric density models.

The study of ocean tides, body tides, radiation pressure, and, to some extent, the earth's gravity field are all bound together in the following way. First, consider radiation pressure and the tides. Radiation-pressure perturbations depend on the changing relative positions of the sun and the satellite, and thus we have terms involving arguments such as $2(\alpha - \lambda_0)$ and $(\alpha - \lambda_0)$. Terms with the same argument arise in the gravitational solar perturbation and consequently in the body and ocean tides. Since we must treat as unknown both the tidal constituents and the radiation-pressure parameters, we must deduce these parameters from the same data. Though difficult, the task is not hopeless, as radiation pressure and tides have different frequency distributions.

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The situation is considerably different with tides, as body tides and ocean tides are not separable without making some assumptions. Following Gaposchkin [1], both tides contribute to the external potential with the same position and time dependence. This will be made more clear when we introduce the notation below.

The analysis described here is a continuation of that described in Gaposchkin [1] using an extended series of data. In addition to ocean-tide parameters, solid-body-tide parameters and the area-to-mass ratios appropriate for computing perturbations due to solar radiation pressure and the earth's albedo pressure are now determined. It is possible to determine tides and radiation-pressure effects, which are small compared with the effects of the geopotential and lunar and solar perturbations, when the effects result in long-period perturbations, that is, when the effects have a long time to build up perturbations. For example, the T2 ocean tide would have an amplitude 1/36 that of the M2 tide, the principal semidiurnal tide. However, the T2 tide gives rise to a perturbation with a period of 2304 days and has quite a large effect on satellite position; the amplitude as measured by satellite perturbation analysis is 0.169 cm.

A useful description of the lunar and solar potential was originally devised by Darwin and given in its present form by Doodson. Modern values are calculated by Cartwright and Edden [2]. The basic idea is to express the lunisolar disturbing potential U at a point (ϕ, λ) on the earth's surface as a Fourier series:

$$\frac{U}{g} = \text{Re} \sum_{\ell m s} F_{\ell m} D_{\ell m s} (i)^{\ell+m} (-1)^{[(\ell+m+1)/2]} \bar{P}_{\ell m}(\phi) e^{i(\sigma_s(t)+m\lambda)} \quad (1)$$

where g is gravity at the equator, $\text{Re}(x)$ is the real part of the complex number x , $[x]$ is the integer part of x , $F_{\ell m}$ are numerical factors, $D_{\ell m s}$ is the numerical value of the potential, $i^2 = -1$, $\bar{P}_{\ell m}(x)$ are fully normalized associated Legendre functions, and $\sigma_s/2\pi$ is the frequency of the tidal constituent (s) .

Cartwright and Edden [2] provide values of $D_{\ell m s}$ based on modern values of the solar and lunar ephemerides consistent with

$$F_{20} = -12.020364 \text{ cm}$$

$$F_{21} = F_{22} = 13.879920 \text{ cm}$$

Expression (1) is the potential at the surface of the earth, and we can analytically continue this potential to a point (r, ϕ, λ) at satellite altitudes as

$$\frac{U}{g} = \text{Re} \sum_{\ell m s} \left(\frac{r}{a_e}\right)^{\ell} F_{\ell m} D_{\ell m s} (i)^{\ell+m} (-1)^{[(\ell+m+1)/2]} \bar{P}_{\ell m}(\phi) e^{i(\sigma_s(t)+m\lambda)} \quad (2)$$

where a_e is the radius of the earth. This form of the potential can be, and has been, used to calculate direct perturbations due to the sun and the moon. It is especially convenient because it contains the time explicitly and linearly, making first-order perturbations quite easy to derive.

The deformation of the solid earth by the potential field (1) can be expressed in terms of the complex love number [3]:

$$k_{\ell}^* = k_{\ell} (1 - i \frac{\mu}{2Q}) \quad (3)$$

where μ is the rigidity ($\mu \approx 2.3$) and Q is the dissipation factor.

Considering the deformation that causes U_{tide} , we can analytically continue U_{tide} to satellite altitudes as

$$U_{\text{tide}} = g \text{Re} \sum_{\ell m s} \left(\frac{a_e}{r}\right)^{\ell+1} k_{\ell}^*(s) F_{\ell m} D_{\ell m s} (i)^{\ell+m} (-1)^{[(\ell+m+1)/2]} \bar{P}_{\ell m}(\phi) e^{i(\sigma_s(t)+m\lambda)} \quad (4)$$

Here, the love number k_{ℓ}^* is assumed to depend on the driving frequency, a dependency that is clearly indicated by theoretical models of the earth's nutation for tides near the diurnal frequency [4-10]. In addition, for long-term deformation, we would expect it to be nonelastic. Over millions of years, the earth is nearly hydrostatic [11]. From postglacial-rebound models, the earth is conventionally modeled as a viscous fluid [12]. Even at the Chandler period, Anderson and Minster [13] have postulated significant dissipation. Therefore, it is clearly possible that significant variations in $k_{\ell}^*(s)$ occur.

Similar remarks apply to ocean tides. Each ocean-tide component of height ζ_s (for a driving function $D_{\ell m s}$ corresponding to σ_s) can be expressed in a series of spherical harmonics $\zeta_{\ell m s}$, where $\zeta_{\ell m s}$ is the fully normalized complex representation of the ocean tide. If the ocean tide is expressed as a surface layer, then the external potential at satellite heights can be written

$$U_{\text{ocean}} = 4\pi G \rho_w a_e \text{Re} \sum_{\ell m s} \frac{1+k_{\ell}^*(s)}{2\ell+1} \left(\frac{a_e}{r}\right)^{\ell+1} (i)^{\ell+m} (-1)^{[(\ell+m+1)/2]} \zeta_{\ell m s} \bar{P}_{\ell m}(\phi) e^{i(\sigma_s(t)+m\lambda)} \quad (5)$$

where G is Newton's gravitational constant and ρ_w is the density of ocean water.

In equation (5), the loading of the solid earth is taken into account with the love number $k_{\ell}^*(s)$, which is also assumed to depend on frequency (s) . If models are to be used to obtain numerical values [14], the loaded love numbers k_{ℓ} can be found from the unloaded love numbers k_{ℓ} and h_{ℓ} by using

$$k_{\ell}^*(s) = k_{\ell}(s) - h_{\ell}(s) \quad (6)$$

Implicit in writing equation (5) in terms of $\zeta_{\ell m s}$, i.e., using a set of coefficients for each frequency (s) , is the frequency dependence of the ocean tides. A number of ocean-tide models have been computed [15-18], and frequency dependence has been observed in the following sense. The equilibrium tides are relatively easy to compute. The admittance function — i.e., the ratio of the driving force (the equilibrium theory) to the model — has significant departures at all frequencies [19, 20]. For example, the long-period astronomical tides S_a and S_{sa} are quite small; on theoretical grounds, we would expect these to be equilibrium tides [21], but the observed annual tide is 100 times larger [20]. These variations in sea level are thought to be due to changes in winds, atmospheric pressure, water density, and water distribution. Some of these effects do not change the external potential. For example, atmospheric pressure change of sea level does not change the potential because it is the total mass of the atmosphere and ocean that is measured. Therefore, sea-level variations may not be easily related to satellite measurements of ocean tides. Much less is known about the semiannual sea-level variations, although the evidence suggests a similar amount of energy [22].

Equation (5) also shows that all the components \mathcal{Q}_{lms} for a given frequency (s) have the same time dependence. Therefore, with only one satellite, we can obtain a linear combination of the \mathcal{Q}_{lms} terms. Several satellites at different inclinations can be used to separate the tidal components in a manner analogous to the determination of the geopotential [23]. In addition, the ocean and body tides enter the potential in exactly the same form [24-27], and from satellite analysis, we can sense only the linear combination

$$gF_{lm} D_{lms} k_l^*(s) + 4\pi G \rho_w a^3 \frac{1 + k_l^*(s)}{2l + 1} \mathcal{Q}_{lms} \quad (7)$$

It is therefore clear from equation (7) that the analyses of ocean and body tides are inextricably linked.

In the analysis described here, the major tidal constituents giving rise to long-period perturbations are determined, together with the area-to-mass ratios for the satellites. Long-period perturbations also arise from the zonal harmonics of the geopotential. Since we do not know the geopotential without error, these periodic terms must also be modeled.

DATA AVAILABLE

Precision laser tracking data on three satellites have been analyzed. The satellite characteristics are given in Table 1, where the area-to-mass ratios A/m are

TABLE 1 Satellite Characteristics

Satellite Name	Number	I	e	a (Mm)	$\dot{\omega}$ (°/day)	$\dot{\Omega}$ (°/day)	A/m (cm ² /g)
Geos 1	6508901	59°37	0.0716	8.0736	0.6553	-2.247	0.077
Geos 2	6800201	105.82	0.0319	7.7090	-1.619	1.402	0.096
Lageos	7603901	109.86	0.00445	12.2712	-0.2158	0.3425	0.00689

those obtained in this analysis. The data analyzed are summarized in Table 2, together with the final rms residuals of the data. These data were provided by the Smithsonian Astrophysical Observatory, the National Aeronautics and Space Administration, and the Centre National d'Etudes Spatiales.

TABLE 2 Summary of Satellite Data

Satellite	Dates (MJD)	Interval		σ_{Ω} (μ°)	σ_I (μ°)	σ (m)
		Days	Years			
Geos 1	41501-43687	2186	6.0	63	78	8
Geos 2	41501-43299	1798	4.9	58	82	8
Lageos	42911-43680	769	2.1	14	16	8

METHOD OF ANALYSIS

The basic ideas of analyzing satellite-tracking data have been developed and described by Gaposchkin [1, 24, 28]. First, a few remarks are in order. The orbit-determination program uses a combination of analytical and semianalytical theory to describe the perturbations due to the geopotential, lunar and solar attractions,

body tides, ocean tides, reference-frame accelerations, direct solar radiation pressure, and earth albedo pressure, both direct and infrared. If such a theory were complete and accurate and if the geophysical constants were known without error, then the constants of integration (the mean elements) would be constant for all time. If the mean elements were computed for data at two different epochs, the same numerical values would be obtained within the limit imposed by the accuracy and distribution of the data. The mean elements calculated at different times, of course, are not the same in practice. These variations are then assumed to be due to the errors in the geophysical constants used in the analysis.

The calculation proceeds, then, by adopting an estimate of the physical model. The physical parameters used here are summarized in Table 3. A series of mean elements is calculated, and the variations in inclination and argument of the node are analyzed. The satellite node changes owing to the direct perturbation and to the indirect perturbation through J_2 ; i.e., the interaction terms arise

TABLE 3 Physical Parameters Used in the Calculation

Parameter	Source	Reference
Geopotential model	GEM 10	[29]
Station coordinates	Lageos	[30]
GM	3.987005×10^{20}	cm ³ /sec ²
c	2.9979248×10^{10}	cm/sec
k_2	0.302	[10]
Ocean tides		[11]
$\alpha = 0.219 + 0.41 \sin^2 \phi$	Earth albedo	

from Δa , Δe , and ΔI . The first-order correction can be derived from the "secular" term in the disturbing potential [24]:

$$\frac{d\Omega}{dt} = -J_2 n \left(\frac{a_e}{a} \right)^2 \frac{\cos I}{(1 - e^2)^2} \quad (8)$$

which gives

$$\frac{d\Omega}{dt} \delta\Omega = \frac{\partial}{\partial a} \left(\frac{d\Omega}{dt} \right) \Delta a + \frac{\partial}{\partial e} \left(\frac{d\Omega}{dt} \right) \Delta e + \frac{\partial}{\partial I} \left(\frac{d\Omega}{dt} \right) \Delta I \quad (9)$$

The perturbation is then

$$\delta\Omega = \int_{t_0}^t \frac{d}{dt} \delta\Omega dt \quad (10)$$

These interaction terms are, of course, part of the analytical theory used to calculate the mean elements. However, in the case of an unmodeled effect that causes a real change in a , e , and I , there is a real change in Ω . For example, since atmospheric drag reduces both a and e , Ω also changes even though drag causes no direct perturbation in Ω . There is, though, a small drag effect due to atmospheric rotation. We can remove these unmodeled contributions to Ω easily by using the observed values of Δa , Δe , and ΔI to calculate $\delta\Omega$ from equation (10). Of course, if the effect being analyzed changes I , then the interaction term in the theory should not be used in this case. We took the opposite approach and

used equation (10) only with observed values of Δa and Δe . The rationale was that since the nontidal perturbations in I were estimated to be smaller than the errors in calculating I , the corrected a would have smaller errors.

The reduced values of a and I were fit by least squares to calculate the expected periodic perturbations as $A \cos 2\pi ft + B \sin 2\pi ft$. In addition, a quadratic polynomial and periodic terms corresponding to the argument of perigee ω were fit. The polynomial accounts for the unmodeled secular and the possible very long-period perturbations, and the ω and 2ω terms account for the errors in the zonal harmonics. Table 4 gives the tides determined. The K_1 , ω , and 2ω terms were not introduced for Lageos, because the arc of data was shorter than the perturbation period. From each element and satellite, we calculated a normal system of equations for the unknowns, which was then solved. The six normal systems were combined, eliminating the undesired variables (e.g., the polynomials). At the point of combining the normal equations, the multiple variables associated with each tidal frequency were introduced; that is, in the normal equation for each frequency, the desired linear combination was introduced — for example,

$$A \frac{\partial \mathcal{E}_{22S2}}{\partial a} + B \frac{\partial \mathcal{E}_{42S2}}{\partial a} + C \frac{\partial \mathcal{E}_{62S2}}{\partial a}$$

where A , B , and C are the partial derivatives of the element with respect to the unknown.

TABLE 4 Tides Determined

Darwin	Doodson	D_{LMS}	Period of Perturbation (days)		
			Geos 1	Geos 2	Lageos
T2	272.556	0.02476		-2356	-158
S2	273.555	0.42248	-56	432	-280
K2	275.555	0.11498	-80	128	525
P1	163.555	0.17543	-85	-632	-221
K1	165.555	-0.53011	-160	256	
$\phi 1$	167.555	-0.00755	-1304		
Sa	056.554	0.01156	365	365	365*
Ssa	057.555	0.07281	182	182	182*
ω			550	-222	
2ω			275	-111	

* Node only.

The remaining issue of whether to solve for the ocean tide or the body tide was settled as follows. For the semidiurnal tides ($m = 2$), the theoretical evidence is that k_2 should be constant at $k_2 = 0.302$. For the diurnal tides ($m = 1$), we expect significant resonance effects in k_2 as well as a complex ocean tide from P1 and K1. However, for the long-period zonal tides ($m = 0$), the equilibrium theory is expected to hold for the gravitational tides. The unknowns were therefore selected to be \mathcal{E}_{LMS} for the diurnal and semidiurnal tides and Δk_2 for the zonal tides. Of course, this is quite arbitrary, since Δk_2 can easily be converted to \mathcal{E}_{LMS} by using equation (6). The adopted solution is given in Table 5. The residuals are plotted in Figures 1 to 6. A significant and unexplained perturbation, with a period of approximately 150 days, exists for Geos 2.

TABLE 5 Derived Ocean and Body Tides

Tide	Darwin	Doodson	L	M	D_{LMS}	\mathcal{E}_{LMS} (cm)		C_{LMS}^+ (cm)	ϵ_{LMS}^+	Schwiderski	
						a	$b1$			C^+ (cm)	ϵ^+
T2	272.556	2 2	2	2	0.02476	0.0368 ± 0.0016	0.2540 ± 0.0045	0.1657 ± 0.0029	-82° ± 1		
S2	273.555	2 2	2	2	0.42248	-2.3446 ± 0.2156	-0.2830 ± 0.2169	1.5244 ± 0.1392	173 ± 3	0.9290	314°
S2	273.555	4 2	4	2	0.42248	-3.7344 ± 1.1476	-0.8489 ± 1.1553	0.8563 ± 0.2566	167 ± 16	0.3717	103
S2	273.555	6 2	6	2	0.42248	-8.6593 ± 1.7197	-7.3612 ± 1.7375	1.4139 ± 0.2139	140 ± 8	0.1724	280
K2	275.555	2 2	2	2	0.11498	-0.1397 ± 0.2481	-0.4151 ± 0.2516	0.2827 ± 0.1601	109 ± 30	0.2601	312
K2	275.555	4 2	4	2	0.11498	0.9305 ± 0.9455	-0.0077 ± 0.9500	0.2081 ± 0.2124	0 ± 45	0.1041	101
K2	275.555	6 2	6	2	0.11498	-0.9322 ± 1.2886	0.3137 ± 1.2879	0.1224 ± 0.1603	199 ± 51	0.0483	278
P1	163.555	2 1	2	1	0.17543	-9.5322 ± 0.2952	0.6623 ± 0.2892				
						Δk_2	0.4630				
							-9.0692	0.6623	11.7395 ± 0.3811	-175 ± 2	0.9022 223
P1	163.555	4 1	4	1	0.17543	0.2485 ± 0.6158	0.8260 ± 0.6029	0.8183 ± 0.5842	-74 ± 35	0.6365	168
K1	165.555	2 1	2	1	-0.53011	10.2983 ± 0.3906	2.2120 ± 0.3960				
						Δk_2	-4.2910				
							0.0073	2.2120	6.4016 ± 0.5043	-20 ± 3	2.8170 -45
						Δk_2					
K1	165.555	4 1	4	1	-0.53011	1.7460 ± 0.3489	-0.1684 ± 0.3423	1.6641 ± 0.3489	6 ± 11	1.9179	-16
$\phi 1$	167.555	2 1	2	1	-0.00755	0.0547 ± 0.0047	0.3787 ± 0.0046				
						Δk_2	0.0345				
							0.0892	0.3787	0.5023 ± 0.0061	77 ± 1	
Sa	056.554	2 0	2	0	0.01156	0.2416 ± 0.0562	0.6215 ± 0.0562				
						\mathcal{E}_{20}	0.0267				
							0.2978	0.6215	2.62	68	
Ssa	057.555	2 0	2	0	0.07281	0.04207 ± 0.0175	-0.05596 ± 0.0175			$k_2^*(Ssa) = 0.3704 - 0.0560i$	
						\mathcal{E}_{20}	0.02637			$k_2^*(Ssa) = 0.3704 \pm 0.017$	
							0.06837	-0.05596		$\epsilon_2^*(Ssa) = 8^\circ \pm 3$	

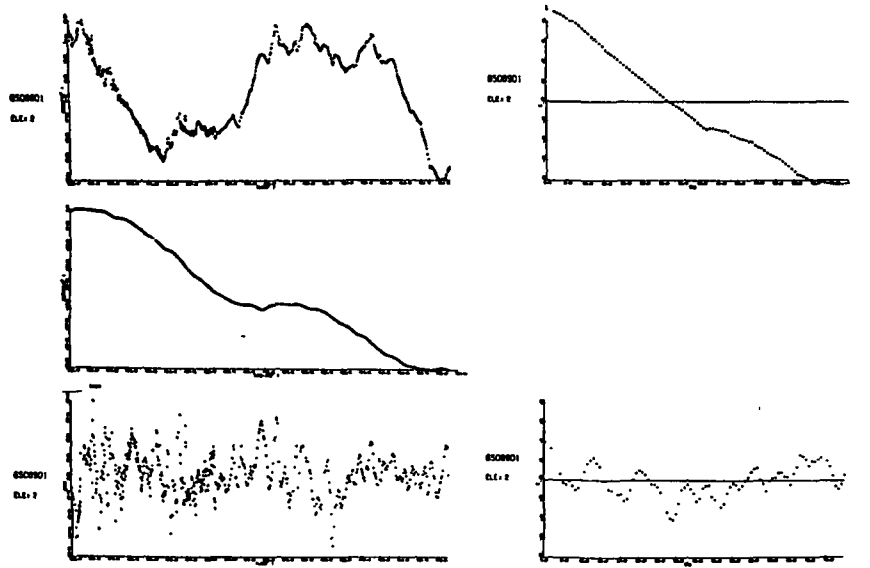


Fig. 1 Residuals of Geos 1 node and radiation pressure perturbations.

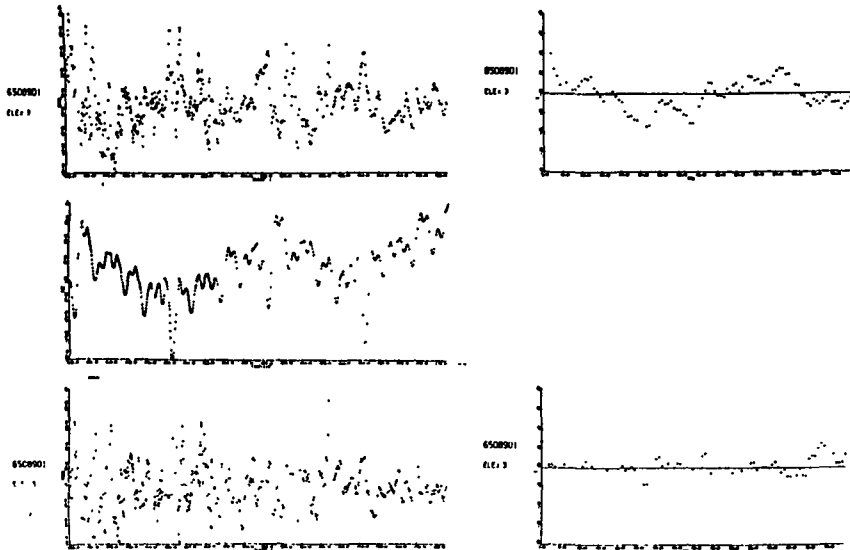


Fig. 2 Residuals of Geos 1 inclination and radiation pressure perturbations.

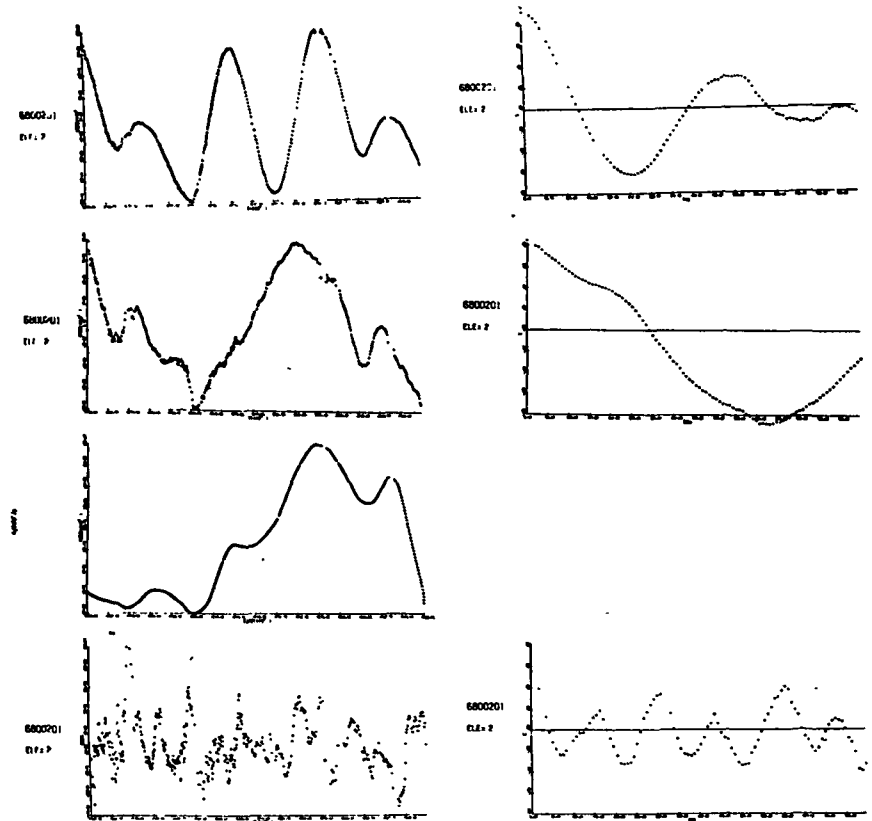


Fig. 3 Residuals of Geos 2 node and radiation pressure perturbations.

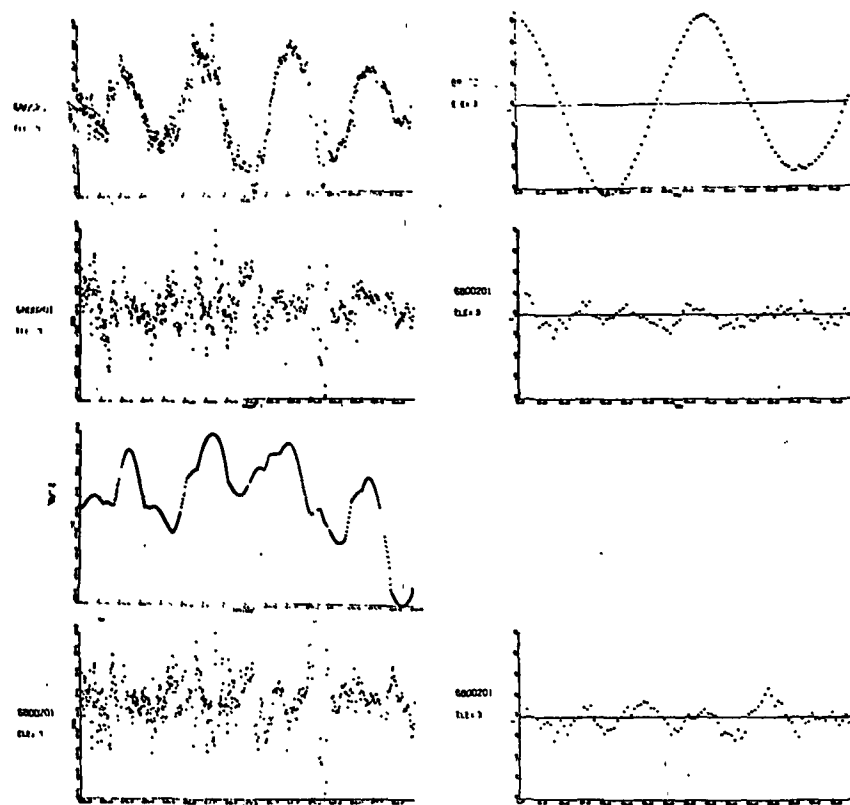


Fig. 4 Residuals of Geos 2 inclination and radiation pressure perturbations.

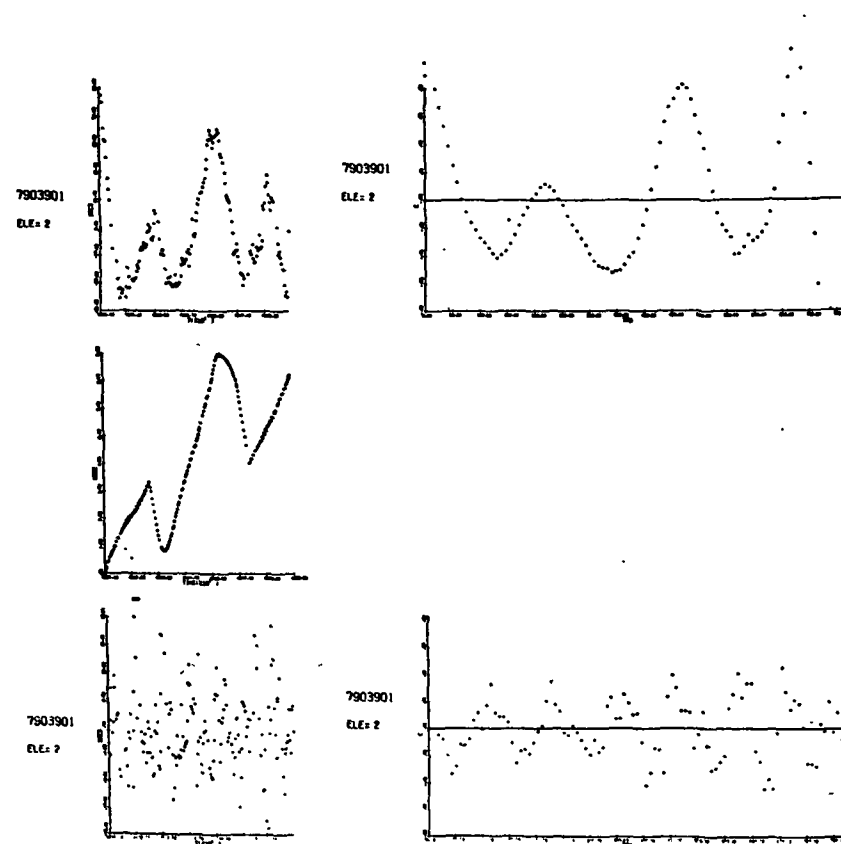


Fig. 5 Residuals of Lageos node and radiation pressure perturbations.

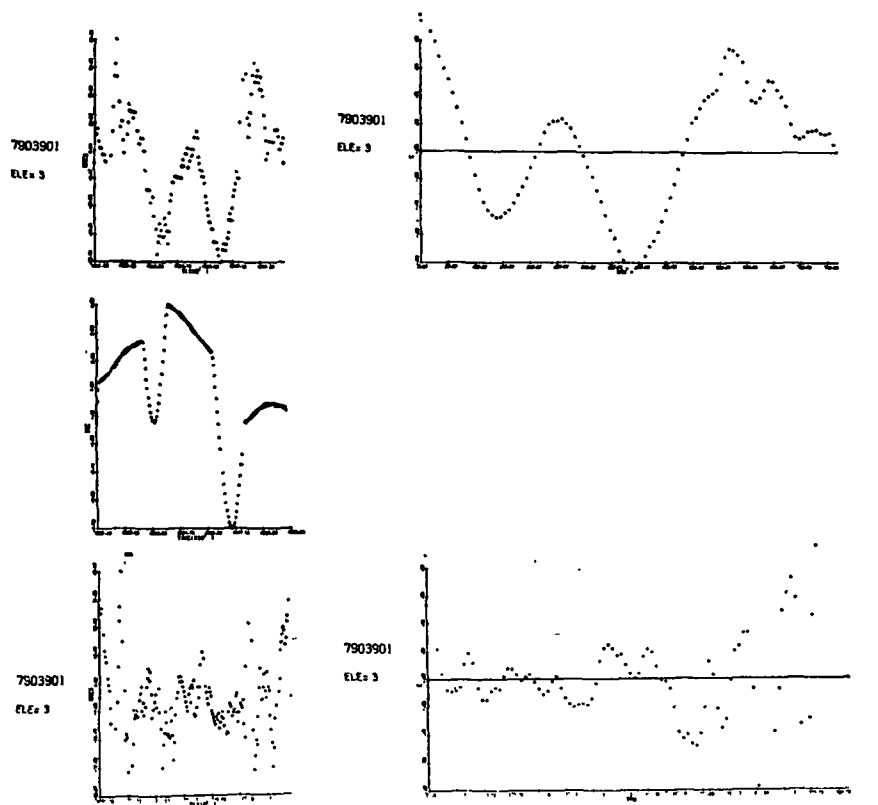


Fig. 6 Residuals of Lageos inclination and radiation pressure perturbations.

DETERMINATION OF A/m

The area-to-mass ratio is essentially determined separately for each satellite. Figure 3 shows the variation in α for Geos 2; it is dominated by the P1 and S2 tides. Also on the figure are the variation in α after those two periodic terms have been fit and removed by least squares and the nominal radiation pressure and albedo perturbation in α . Recall that there is also a long-period perturbation due to the T2 tide. The area-to-mass ratio was selected to make the ratio of the amplitude of $\Delta\alpha_{T2}/\Delta I_{T2}$ agree with the theoretical ratio and to make the phase angle differ by $\pi/2$. This criterion is, of course, independent of the actual value of \mathcal{E}_{22T2} . It turns out that this choice of A/m also gave the minimum sum of squares of the remaining variation in α and I . The values of A/m in Table 1 were found in this way for Geos 1 and Geos 2.

DISCUSSION

The ocean tides T2, S2, K2, P1, K1, and ϕ_1 determined in this analysis are given in Table 5 as both the complex number used in the calculation, \mathcal{E}_{lms} , and the conventional notation of amplitude C_{lms} and phase ϵ_{lms} . Also given are the equivalent ocean-tide parameters from Schwiderski's recent numerical model [17, 18]. Schwiderski's model is actually the amplitude and phase for the K1, O1, P1, M2, N2, and S2 tides on a $1^\circ \times 1^\circ$ grid, with the values of the K2 tide derived by taking $\zeta_{K2} = 0.28 \times \zeta_{S2}$ and $\epsilon_{K2} = \epsilon_{S2} - 2^\circ$. These numerical values have been used to calculate the equivalent spherical-harmonic coefficients [31].

The semidiurnal tides do not have any theoretical complications, and the relatively good agreement of the satellite values with the model can be noted. The T2 tide can be judged only in terms of its size relative to M2. That is, if we assume that the amplitude of the tide is proportional to the disturbing potential, then $D_{22M2}/D_{22T2} = 36.68$. The determined value compared with Schwiderski's is

$$C_{22M2}^+/C_{22T2}^+ = 2.95/0.1657 = 17.80.$$

If we compare that with a satellite-derived value of C_{22M2}^+ from Felsentreger and Marsh [32], we have $C_{22M2}^+/C_{22T2}^+ = 3.42/0.1657 = 20.64$. This agreement must be considered satisfactory in light of the satellite value being a lumped coefficient and the possible uncertainty in the model, which may not be so good for the long wavelengths.

To evaluate the S2 ocean tide, we must add the significant contribution of an atmospheric tide. Lambeck [33] gives the equivalent atmospheric tide as 0.34 cm, 158° of water, which yields a combined S2 tide of $C_{22S2}^+ = 0.6337$ cm, $\epsilon_{22S2} = 301^\circ$. The agreement is not so good for C_{22S2}^+ as it is for C_{22M2}^+ and C_{22T2}^+ . For the K2 tide, the agreement is much more satisfactory. However, in all cases, the numerical model gives tidal amplitudes smaller than the satellite-derived values. This could be partly due to an error in the adopted value of the love number k_2 , which would affect only the second-degree terms.

The diurnal tides are closely connected with the frequency-dependent love number $k_2(s)$. From equation (7), we can find the change in ocean tide for a change in $k_2(s)$. Recall that the satellite orbit was calculated with a constant value of $k_2^* = 0.302 + 0.01i$. The ocean tide given in Table 5 therefore includes part of any variation in k_2^* . The relation between Δk_2 and $\Delta \mathcal{E}_{lms}$ is

$$\Delta \mathcal{E}_{lms} = 152 D_{lms} \Delta k_2^{(s)} \text{ cm}$$

for zonal tides and

$$\Delta \mathcal{C}_{2ms} = -176 D_{2ms} \Delta k_2^{(s)} \text{ cm}$$

for nonzonal tides. Using the theoretical model of Wahr [10], we give the necessary corrections in Table 6.

TABLE 6 Equivalent Ocean Tide

Tide	D_{2ms}	k_2	Δk_2	$\Delta \mathcal{C}_{2ms}$ (cm)
K1	-0.53011	0.256	-0.046	-4.2918
P1	0.17543	0.287	-0.015	0.4631
O1	0.37694	0.298	-0.004	0.2654
ψ_1	-0.00422	0.466	0.164	0.1218
ϕ_1	-0.00755	0.328	0.026	0.0345
Sa	0.01156	0.299	-0.003	-0.0053
Ssa	0.07281	0.299	-0.003	-0.0332

The corrected value of the tides is also given in Table 5. Look first at the K1 tide, for which the theoretical body-tide model would predict a large change in k_2 . The fourth-degree ocean tide is in quite good agreement with the model, while the second-degree term is not so good. If, however, the calculation is reversed — i.e., the ocean-tide model for \mathcal{C}_{2K1}^* is assumed correct — then the implied value of $k_2^{(K1)} = 0.2082$. Such a value is not ruled out.

Turning to the P1 tide, the fourth-degree term agrees quite well with the model, and the second-degree term is significantly different. The large satellite-derived value is unlikely to be spurious. A similar large value was found by Felsentreger et al. [26]. The correction for the frequency-dependent love number based on the Wahr model is quite small. To explain this satellite-derived value would require $k_2^{(P1)} = 0.0146$. Such a result would indicate that the core-mantle resonance frequency is quite close to the P1 tide, rather than to the ψ_1 tide as found in recent models. One of the Jeffreys and Vicente models, in fact, predicts the above result.

The zonal tides have been calculated in terms of a correction to the complex love number k_2 . The predicted astronomical ocean tide is given in Table 7. The

TABLE 7 $k_2^{(s)}$ Equivalent to the Astronomical Ocean Tide

Tide	D_{20s}	\mathcal{C}_{20s} (cm)	\mathcal{C}_{20s}^+ (cm)	ϵ_{20s}^+	Δk_2
Annual Sa	0.01156	0.0470 + 0i	0.1051	0°	0.0267
Semiannual Ssa	0.07281	0.2914 + 0i	0.6516	0	0.0263

derived values of Δk_2 in Table 5 have been corrected for the astronomical ocean tide. We therefore find $k_2^{(Ssa)} = 0.3704 - 0.0560i$, or a love number of $k_2^{(Ssa)} = 0.3704$ and a phase angle of 8.6°. This implies a Q of approximately 10, which is too small but not ridiculous. Anderson and Minster [13] argue that

at low frequencies, Q is much smaller than implied at seismic frequencies. For example, they calculate $Q(CW) = 26$ for the Chandler wobble frequency. However, the question of frequency-dependent Q is still open. These satellite results could be interpreted to support quite large variations of Q with frequency.

This large value of $k_2^{(Ssa)}$ is supported by other evidence. For example, in calculating the momentum balance of the earth and atmosphere, Lambeck and Cazenave [34] accounted for the tidal effects on the rotation rate of the earth using a value of $k_2^{(Ssa)} = k_2^{(Sa)} = 0.29$. The agreement of the atmospheric-momentum calculation and the earth-rotation data would have been almost perfect had they used $k_2^{(Ssa)} = k_2^{(Sa)} = 0.37$. Even so, their results were quite satisfactory.

A similar calculation would give $k_2^{(Sa)} = 0.5703 + 0.6215i$, which must be rejected for two reasons. First, Q is negative. Second, we know that the annual variation in sea level is much larger than the astronomical tide [20]. There is little understanding of the global annual ocean tide. Therefore, the satellite result can be expressed as

$$\mathcal{C}_{20Sa}^+ = 2.62 \text{ cm}, \quad \epsilon_{20}^+ = 68^\circ, \quad \text{if } k_2^{(Sa)} = 0.302$$

or

$$\mathcal{C}_{20Sa}^+ = 2.92 \text{ cm}, \quad \epsilon_{20}^+ = 65^\circ, \quad \text{if } k_2^{*(Ssa)} = 0.3704 - 0.0560i$$

Either value is quite reasonable when compared with observations given by Lisitzin [20]. The satellite result is then better interpreted in terms of an ocean tide. If significant nonastronomical ocean tides occur at the annual frequency, similar effects might also be expected at the semiannual frequency. The observational evidence is sparse, but it suggests considerable energy at and near the semiannual frequency [22]. Therefore, the result for $k_2^{*(Ssa)}$ must be viewed with caution.

CONCLUSIONS

Satellite orbit analysis can be used to determine ocean and body tides. Other long-period perturbations must also be treated properly and removed from the data.

For the diurnal and semidiurnal ocean tides, the numerical models apparently underestimate the size of the long-wavelength tides. There is also a significant discrepancy for the P1 tide, which seems likely to be connected with the solid-body-tide model. The initial suggestion is that the resonant frequency of the body tide is close to the P1 tidal frequency.

Analyses of the annual and semiannual tides suggests that the love number k_2 increases and Q decreases as the period of deformation gets longer. However, this interpretation hinges on the semiannual ocean tides, for which there is very little information.

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Appendix B.

Mean Elements

This appendix contains the mean elements used for analysis of earth and ocean tides. The geophysical constants used (e.g. geopotential model, station coordinates, and tide parameters) are given in Table 15 of the main text. Except for errors in these geophysical constants, these mean elements should have all periodic perturbations removed except for those due to tides.

The units are as follows: perigee, node, and inclinations are given in degrees; the eccentricity is dimensionless; the mean anomaly is in revolutions; and the semimajor axis is in megameters.

	EPOCH	GEOS-A PERIGEE	NODE	MEAN INCLINATION	ELEMENTS ECCENTRICITY	MEAN ANOMALY	A
6508901	41501.	298.37136	39.15146	59.38340	0.07168781	-0.67565836	8.07277041
6508901	41503.	299.67822	34.65851	59.38340	0.07169157	-0.73976319	8.07276989
6508901	41505.	300.98533	30.16549	59.38333	0.07169352	-0.80386722	8.07276931
6508901	41507.	302.29268	25.67260	59.38334	0.07169472	-0.86797038	8.07276879
6508901	41509.	303.59977	21.17971	59.38337	0.07169577	-0.93207138	8.07276838
6508901	41511.	304.90706	16.68673	59.38341	0.07169650	-0.99617090	8.07276791
6508901	41513.	306.21419	12.19377	59.38343	0.07169718	-0.06026865	8.07276768
6508901	41519.	310.13646	-1.28500	59.38333	0.07169771	-0.25255701	8.07276692
6508901	41521.	311.44492	-5.77800	59.38331	0.07169811	-0.31665389	8.07276674
6508901	41523.	312.75145	-10.27096	59.38338	0.07169913	-0.38074634	8.07276661
6508901	41525.	314.05931	-14.76393	59.38354	0.07169907	-0.44484172	8.07276651
6508901	41527.	315.36641	-19.25687	59.38354	0.07169947	-0.50893514	8.07276584
6508901	41529.	316.67807	-23.74978	59.38334	0.07169732	-0.57303936	8.07276621
6508901	41533.	319.28765	-32.73566	59.38372	0.07169944	-0.70121715	8.07276613
6508901	41535.	320.59460	-37.22852	59.38349	0.07169813	-0.76531198	8.07276668
6508901	41537.	321.90387	-41.72148	59.38332	0.07169744	-0.82941312	8.07276685
6508901	41539.	323.21050	-46.21447	59.38351	0.07169754	-0.89350923	8.07276704
6508901	41541.	324.51998	-50.70728	59.38342	0.07169633	-0.95761315	8.07276716
6508901	41543.	325.83163	-55.20022	59.38332	0.07169493	-0.02172323	8.07276769
6508901	41545.	327.12418	-59.69325	59.38341	0.07169693	-0.08578967	8.07276653
6508901	41547.	328.43773	-64.18600	59.38356	0.07169575	-0.14990761	8.07276837
6508901	41549.	329.75321	-68.67900	59.38334	0.07169354	-0.21403174	8.07276868
6508901	41551.	331.05975	-73.17191	59.38322	0.07169300	-0.27813577	8.07276944
6508901	41553.	332.37160	-77.66483	59.38332	0.07169198	-0.34225384	8.07277043
6508901	41555.	333.67215	-82.15765	59.38337	0.07169171	-0.40634574	8.07276981
6508901	41557.	334.97813	-86.65061	59.38344	0.07169062	-0.47045113	8.07276892
6508901	41575.	346.73585	-127.08676	59.38312	0.07168411	-0.04738150	8.07276858
6508901	41577.	348.04169	-131.57980	59.38318	0.07168355	-0.11147829	8.07276832
6508901	41579.	349.34745	-136.07264	59.38329	0.07168279	-0.17557477	8.07276806
6508901	41583.	351.95769	-145.05853	59.38311	0.07168259	-0.30376143	8.07276778
6508901	41589.	355.87586	-158.53731	59.38317	0.07168195	-0.49604351	8.07276776
6508901	41591.	357.18215	-163.03028	59.38316	0.07168160	-0.56013789	8.07276690
6508901	41593.	358.48750	-167.52320	59.38323	0.07168132	-0.62422792	8.07276699
6508901	41595.	359.79270	-172.01609	59.38326	0.07168098	-0.68831789	8.07276686
6508901	41597.	1.09577	-176.50904	59.38323	0.07168106	0.24759927	8.07276661

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41599.	2.40274	-181.00193	59.38332	0.07168013	0.18350628	8.07276680
6508901	41601.	3.70945	-185.49487	59.38326	0.07168017	0.11941459	8.07276670
6508901	41603.	5.01589	-189.98780	59.38319	0.07168044	0.05532389	8.07276629
6508901	41605.	6.32217	-194.48071	59.38324	0.07168055	0.99123479	8.07276638
6508901	41607.	7.62908	-198.97362	59.38327	0.07168010	0.92714370	8.07276637
6508901	41609.	8.93440	-203.46657	59.38327	0.07168057	0.86305804	8.07276615
6508901	41611.	10.24003	-207.95955	59.38316	0.07168104	0.79897227	8.07276601
6508901	41613.	11.54698	-212.45246	59.38318	0.07168115	0.73488386	8.07276562
6508901	41615.	12.85317	-216.94538	59.38320	0.07168100	0.67079827	8.07276562
6508901	41617.	14.15962	-221.43829	59.38319	0.07168080	0.60671243	8.07276553
6508901	41619.	15.46569	-225.93109	59.38344	0.07168115	0.54262831	8.07276523
6508901	41623.	18.07882	-234.91722	59.38321	0.07168047	0.41445984	8.07276494
6508901	41625.	19.38436	-239.41016	59.38306	0.07168143	0.35038010	8.07276495
6508901	41627.	20.69071	-243.90291	59.38349	0.07168108	0.28629671	8.07276466
6508901	41629.	21.99746	-248.39559	59.38376	0.07168053	0.22221326	8.07276466
6508901	41631.	23.31032	-252.88886	59.38315	0.07167919	0.15811604	8.07275997
6508901	41633.	24.61671	-257.38158	59.38355	0.07167996	0.09403378	8.07276499
6508901	41635.	25.91685	-261.87468	59.38323	0.07168203	0.02996804	8.07276438
6508901	41637.	27.22325	-266.36761	59.38312	0.07168251	0.96588787	8.07276408
6508901	41639.	28.52948	-270.86048	59.38312	0.07168333	0.90180885	8.07276417
6508901	41641.	29.83596	-275.35352	59.38343	0.07168330	0.83773003	8.07276387
6508901	41643.	31.14276	-279.84647	59.38322	0.07168303	0.77365097	8.07276367
6508901	41645.	32.44904	-284.33948	59.38315	0.07168291	0.70957349	8.07276377
6508901	41647.	33.75549	-288.83231	59.38313	0.07168401	0.64549637	8.07276357
6508901	41649.	35.06211	-293.32523	59.38324	0.07168353	0.58141928	8.07276337
6508901	41651.	36.36867	-297.81821	59.38323	0.07168381	0.51734279	8.07276337
6508901	41653.	37.67490	-302.31117	59.38323	0.07168405	0.45326722	8.07276337
6508901	41655.	38.98182	-306.80437	59.38365	0.07168565	0.38919035	8.07276257
6508901	41657.	40.28748	-311.29702	59.38362	0.07168249	0.32511491	8.07276297
6508901	41665.	45.51517	-329.26879	59.38332	0.07168549	0.06880560	8.07276328
6508901	41667.	46.82439	-333.76176	59.38333	0.07169102	0.00472372	8.07276228
6508901	41671.	49.43088	-342.74770	59.38349	0.07168217	0.87658567	8.07276229
6508901	41673.	50.73982	-347.24046	59.38318	0.07168456	0.81250444	8.07276310
6508901	41675.	52.04537	-351.73354	59.38318	0.07168594	0.74843118	8.07276321
6508901	41679.	54.65958	-0.71930	59.38323	0.07168454	0.62027897	8.07276272

	EPOCH	GEOS-A PERIGEE	NODE	MEAN INCLINATION	ELEMENTS ECCENTRICITY	MEAN ANOMALY	A
6508901	41681.	55.96612	-5.21218	59.38324	0.07168469	0.55620503	8.07276272
6508901	41683.	57.27245	-9.70512	59.38323	0.07168517	0.49213167	8.07276255
6508901	41685.	58.57904	-14.19812	59.38308	0.07168581	0.42805895	8.07276236
6508901	41689.	61.18091	-23.18411	59.38332	0.07167019	0.29995452	8.07276447
6508901	41691.	62.50079	-27.67687	59.38327	0.07168845	0.23583698	8.07276408
6508901	41693.	63.80458	-32.16976	59.38319	0.07168706	0.17177615	8.07276178
6508901	41695.	65.11152	-36.66280	59.38317	0.07168692	0.10770583	8.07276159
6508901	41697.	66.41769	-41.15573	59.38319	0.07168633	0.04363778	8.07276149
6508901	41699.	67.72400	-45.64863	59.38324	0.07168652	0.97956976	8.07276149
6508901	41701.	69.03305	-50.14142	59.38325	0.07168994	0.91549232	8.07276269
6508901	41705.	71.64221	-59.12744	59.38318	0.07168576	0.78736873	8.07276140
6508901	41707.	72.94806	-63.62043	59.38316	0.07168593	0.72330304	8.07276120
6508901	41709.	74.25448	-68.11353	59.38298	0.07168622	0.65923635	8.07276200
6508901	41711.	75.56316	-72.60632	59.38316	0.07168967	0.59516027	8.07276190
6508901	41715.	78.17314	-81.59215	59.38319	0.07168593	0.46703448	8.07276129
6508901	41717.	79.47988	-86.08507	59.38314	0.07168464	0.40296623	8.07276129
6508901	41723.	83.39770	-99.56366	59.38320	0.07168788	0.21076865	8.07276063
6508901	41725.	84.70398	-104.05684	59.38325	0.07168496	0.14670524	8.07276173
6508901	41727.	86.01008	-108.54967	59.38324	0.07168515	0.08264052	8.07276063
6508901	41729.	87.31607	-113.04258	59.38320	0.07168526	0.01857821	8.07276033
6508901	41739.	93.84570	-135.50736	59.38309	0.07169235	0.69827967	8.07276023
6508901	41741.	95.15216	-140.00009	59.38306	0.07168816	0.63421824	8.07275953
6508901	41745.	97.76567	-148.98625	59.38321	0.07168815	0.50610496	8.07275848
6508901	41747.	99.07090	-153.47916	59.38318	0.07168801	0.44205298	8.07275957
6508901	41753.	102.99056	-166.95809	59.38340	0.07168564	0.24989151	8.07275785
6508901	41755.	104.29585	-171.45110	59.38335	0.07168635	0.18584318	8.07275766
6508901	41757.	105.60096	-175.94371	59.38315	0.07169119	0.12179773	8.07275796
6508901	41759.	106.90839	-180.43678	59.38306	0.07168489	0.05774304	8.07275746
6508901	41761.	108.21503	-184.92991	59.38308	0.07168422	0.99369214	8.07275816
6508901	41765.	110.82675	-193.91561	59.38312	0.07168526	0.86559704	8.07275716
6508901	41767.	112.13276	-198.40861	59.38310	0.07168525	0.80154988	8.07275716
6508901	41771.	114.74559	-207.39457	59.38308	0.07168469	0.67345080	8.07275726
6508901	41773.	116.05192	-211.88746	59.38309	0.07168479	0.60940227	8.07275736
6508901	41775.	117.35779	-216.38045	59.38309	0.07168529	0.54535415	8.07275756
6508901	41777.	118.66375	-220.87338	59.38312	0.07168559	0.48130460	8.07275766

	EPOCH	GEOS-A PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41779.	119.97018	-225.36623	59.38296	0.07168538	0.41725388	8.07275765
6508901	41781.	121.27694	-229.85927	59.38309	0.07168476	0.35320236	8.07275775
6508901	41783.	122.58287	-234.35223	59.38317	0.07168495	0.28915129	8.07275825
6508901	41785.	123.88907	-238.84526	59.38297	0.07168484	0.22509933	8.07275806
6508901	41787.	125.19549	-243.33818	59.38299	0.07168481	0.16104760	8.07275796
6508901	41789.	126.50198	-247.83110	59.38318	0.07168492	0.09699485	8.07275827
6508901	41791.	127.80845	-252.32403	59.38318	0.07168495	0.03294040	8.07275857
6508901	41793.	129.11516	-256.81694	59.38311	0.07168481	0.96888512	8.07275837
6508901	41795.	130.42197	-261.30989	59.38319	0.07168460	0.90483052	8.07275827
6508901	41797.	131.72810	-265.80285	59.38319	0.07168449	0.84077739	8.07275868
6508901	41799.	133.03473	-270.29587	59.38310	0.07168414	0.77672121	8.07275848
6508901	41801.	134.34117	-274.78882	59.38315	0.07168367	0.71266764	8.07275828
6508901	41803.	135.64746	-279.28166	59.38320	0.07168402	0.64861474	8.07275818
6508901	41805.	136.95417	-283.77464	59.38322	0.07168366	0.58456027	8.07275848
6508901	41807.	138.26060	-288.26762	59.38323	0.07168359	0.52050581	8.07275828
6508901	41809.	139.56727	-292.76050	59.38327	0.07168339	0.45645175	8.07275818
6508901	41811.	140.87336	-297.25344	59.38320	0.07168337	0.39239959	8.07275828
6508901	41813.	142.17983	-301.74650	59.38324	0.07168292	0.32834513	8.07275838
6508901	41815.	143.48668	-306.23940	59.38310	0.07168239	0.26429041	8.07275818
6508901	41817.	144.79280	-310.73225	59.38315	0.07168267	0.20023819	8.07275808
6508901	41819.	146.09945	-315.22519	59.38322	0.07168245	0.13618426	8.07275838
6508901	41821.	147.40607	-319.71823	59.38313	0.07168190	0.07212931	8.07275828
6508901	41823.	148.71272	-324.21117	59.38311	0.07168147	0.00807596	8.07275799
6508901	41825.	150.01929	-328.70404	59.38326	0.07168144	0.94402283	8.07275809
6508901	41827.	151.32552	-333.19703	59.38327	0.07168125	0.87996992	8.07275829
6508901	41829.	152.63243	-337.68994	59.38333	0.07168113	0.81591506	8.07275800
6508901	41831.	153.93912	-342.18283	59.38325	0.07168093	0.75186233	8.07275780
6508901	41833.	155.24538	-346.67579	59.38328	0.07168078	0.68781121	8.07275780
6508901	41835.	156.55177	-351.16878	59.38327	0.07168036	0.62375845	8.07275781
6508901	41837.	157.85830	-355.66174	59.38330	0.07168026	0.55970672	8.07275751
6508901	41839.	159.16486	-0.15463	59.38327	0.07167991	0.49565573	8.07275751
6508901	41841.	160.47110	-4.64759	59.38327	0.07167971	0.43160508	8.07275771
6508901	41843.	161.77769	-9.14054	59.38326	0.07167947	0.36755284	8.07275752
6508901	41845.	163.08427	-13.63347	59.38330	0.07167910	0.30350262	8.07275712
6508901	41847.	164.39057	-18.12638	59.38328	0.07167895	0.23945409	8.07275702

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41849.	165.69672	-22.61935	59.38329	0.07167881	0.17540580	8.07275712
6508901	41851.	167.00320	-27.11227	59.38321	0.07167862	0.11135730	8.07275681
6508901	41853.	168.30974	-31.60519	59.38324	0.07167828	0.04731021	8.07275651
6508901	41855.	169.61599	-36.09814	59.38324	0.07167823	0.98326476	8.07275660
6508901	41859.	172.22906	-45.08409	59.38332	0.07167784	0.85517242	8.07275599
6508901	41863.	174.84133	-54.06993	59.38326	0.07167734	0.72708640	8.07275609
6508901	41865.	176.14777	-58.56291	59.38324	0.07167746	0.66304220	8.07275588
6508901	41867.	177.45414	-63.05583	59.38328	0.07167763	0.59899979	8.07275568
6508901	41869.	178.76032	-67.54875	59.38324	0.07167749	0.53495871	8.07275557
6508901	41871.	180.06648	-72.04175	59.38325	0.07167694	0.47091674	8.07275586
6508901	41873.	181.37306	-76.53469	59.38320	0.07167702	0.40687343	8.07275565
6508901	41875.	182.67930	-81.02757	59.38325	0.07167676	0.34283209	8.07275554
6508901	41877.	183.98548	-85.52054	59.38319	0.07167665	0.27879117	8.07275583
6508901	41879.	185.29165	-90.01354	59.38322	0.07167648	0.21474850	8.07275582
6508901	41881.	186.59781	-94.50646	59.38317	0.07167665	0.15070718	8.07275571
6508901	41883.	187.90434	-98.99937	59.38318	0.07167596	0.08666529	8.07275569
6508901	41885.	189.21059	-103.49230	59.38312	0.07167584	0.02262283	8.07275606
6508901	41887.	190.51681	-107.98525	59.38311	0.07167586	0.95858035	8.07275576
6508901	41889.	191.82307	-112.47820	59.38314	0.07167579	0.89453873	8.07275567
6508901	41891.	193.12926	-116.97112	59.38319	0.07167571	0.83049730	8.07275567
6508901	41893.	194.43561	-121.46409	59.38316	0.07167551	0.76645474	8.07275588
6508901	41895.	195.74208	-125.95703	59.38316	0.07167573	0.70241194	8.07275579
6508901	41897.	197.04847	-130.44993	59.38318	0.07167567	0.63837051	8.07275569
6508901	41899.	198.35512	-134.94288	59.38319	0.07167584	0.57432685	8.07275600
6508901	41901.	199.66140	-139.43583	59.38314	0.07167591	0.51028343	8.07275600
6508901	41903.	200.96775	-143.92877	59.38314	0.07167597	0.44624030	8.07275591
6508901	41905.	202.27408	-148.42173	59.38318	0.07167641	0.38219795	8.07275592
6508901	41907.	203.58084	-152.91472	59.38328	0.07167647	0.31815345	8.07275601
6508901	41909.	204.88728	-157.40761	59.38331	0.07167694	0.25410981	8.07275602
6508901	41911.	206.19363	-161.90051	59.38317	0.07167670	0.19006695	8.07275592
6508901	41913.	207.50033	-166.39351	59.38308	0.07167664	0.12602389	8.07275592
6508901	41915.	208.80681	-170.88641	59.38319	0.07167652	0.06198025	8.07275601
6508901	41917.	210.11317	-175.37932	59.38319	0.07167688	0.99793722	8.07275591
6508901	41919.	211.41981	-179.87225	59.38321	0.07167671	0.93389438	8.07275571
6508901	41921.	212.72671	-184.36527	59.38321	0.07167658	0.86985108	8.07275581

	EPOCH	GEOS-A PERIGEE	NODE	MEAN INCLINATION	ELEMENTS ECCENTRICITY	MEAN ANOMALY	A
6508901	41923.	214.03309	-188.85820	59.38317	0.07167702	0.80580801	8.07275591
6508901	41925.	215.33960	-193.35108	59.38317	0.07167700	0.74176539	8.07275570
6508901	41927.	216.64617	-197.84402	59.38318	0.07167691	0.67772318	8.07275569
6508901	41929.	217.95284	-202.33702	59.38319	0.07167702	0.61368014	8.07275580
6508901	41931.	219.25899	-206.82991	59.38334	0.07167770	0.54963813	8.07275579
6508901	41933.	220.56606	-211.32285	59.38317	0.07167715	0.48559448	8.07275560
6508901	41935.	221.87276	-215.81583	59.38319	0.07167718	0.42155178	8.07275580
6508901	41937.	223.17915	-220.30878	59.38322	0.07167745	0.35750919	8.07275580
6508901	41939.	224.48569	-224.80172	59.38316	0.07167715	0.29346639	8.07275580
6508901	41941.	225.79218	-229.29465	59.38314	0.07167705	0.22942398	8.07275571
6508901	41943.	227.09873	-233.78765	59.38302	0.07167709	0.16538144	8.07275591
6508901	41945.	228.40537	-238.28059	59.38325	0.07167794	0.10133723	8.07275591
6508901	41947.	229.71157	-242.77351	59.38319	0.07167748	0.03729532	8.07275562
6508901	41949.	231.01830	-247.26649	59.38315	0.07167716	0.97325310	8.07275564
6508901	41951.	232.32480	-251.75937	59.38325	0.07167735	0.90921079	8.07275565
6508901	41953.	233.63167	-256.25230	59.38320	0.07167718	0.84516797	8.07275546
6508901	41955.	234.93770	-260.74541	59.38330	0.07167743	0.78112847	8.07275516
6508901	41957.	236.24487	-265.23825	59.38326	0.07167734	0.71708665	8.07275516
6508901	41959.	237.55150	-269.73119	59.38328	0.07167733	0.65304646	8.07275496
6508901	41961.	238.85796	-274.22412	59.38327	0.07167693	0.58900800	8.07275466
6508901	41963.	240.16483	-278.71707	59.38327	0.07167680	0.52496990	8.07275445
6508901	41965.	241.47158	-283.21002	59.38326	0.07167679	0.46093265	8.07275435
6508901	41967.	242.77812	-287.70296	59.38327	0.07167669	0.39689666	8.07275411
6508901	41969.	244.08513	-292.19591	59.38322	0.07167627	0.33286072	8.07275382
6508901	41971.	245.39178	-296.68885	59.38321	0.07167614	0.26882671	8.07275373
6508901	41973.	246.69818	-301.18171	59.38325	0.07167598	0.20479343	8.07275364
6508901	41991.	258.45688	-341.61832	59.38323	0.07167389	0.62852199	8.07275248
6508901	41993.	259.76315	-346.11121	59.38323	0.07167395	0.56449444	8.07275238
6508901	41995.	261.07026	-350.60411	59.38319	0.07167511	0.50046467	8.07275257
6508901	41997.	262.37637	-355.09704	59.38327	0.07167442	0.43643829	8.07275216
6508901	41999.	263.68278	-359.59005	59.38325	0.07167347	0.37241151	8.07275215
6508901	42001.	264.98906	-4.08303	59.38325	0.07167346	0.30838518	8.07275213
6508901	42003.	266.29543	-8.57594	59.38323	0.07167302	0.24435845	8.07275221
6508901	42005.	267.60188	-13.06893	59.38322	0.07167338	0.18033246	8.07275209
6508901	42007.	268.90819	-17.56185	59.38319	0.07167304	0.11630635	8.07275207

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42009.	270.21455	-22.05473	59.38300	0.07167260	-0.94771938	8.07275187
6508901	42011.	271.52093	-26.54767	59.38328	0.07167280	-0.01174442	8.07275159
6508901	42013.	272.82571	-31.04067	59.38329	0.07167226	-0.07576419	8.07275144
6508901	42015.	274.13153	-35.53370	59.38321	0.07167251	-0.13978534	8.07275135
6508901	42017.	275.43683	-40.02657	59.38323	0.07167252	-0.20380488	8.07275110
6508901	42019.	276.74229	-44.51954	59.38322	0.07167255	-0.26782278	8.07275070
6508901	42021.	278.04756	-49.01250	59.38319	0.07167329	-0.33183807	8.07275035
6508901	42023.	279.35296	-53.50540	59.38325	0.07167397	-0.39585230	8.07275005
6508901	42025.	280.65855	-57.99836	59.38324	0.07167433	-0.45986512	8.07274960
6508901	42027.	281.96402	-62.49136	59.38325	0.07167524	-0.52387568	8.07274922
6508901	42029.	283.26935	-66.98431	59.38320	0.07167620	-0.58788355	8.07274880
6508901	42031.	284.57505	-71.47728	59.38323	0.07167667	-0.65189058	8.07274835
6508901	42033.	285.88077	-75.97025	59.38325	0.07167757	-0.71589499	8.07274787
6508901	42035.	287.18641	-80.46314	59.38329	0.07167796	-0.77989745	8.07274728
6508901	42037.	288.49185	-84.95612	59.38314	0.07167904	-0.84389662	8.07274699
6508901	42039.	289.79766	-89.44906	59.38317	0.07168031	-0.90789514	8.07274658
6508901	42041.	291.10330	-93.94204	59.38329	0.07168112	-0.97189123	8.07274605
6508901	42043.	292.40881	-98.43500	59.38325	0.07168211	-0.03588490	8.07274572
6508901	42045.	293.71461	-102.92795	59.38324	0.07168333	-0.09987775	8.07274530
6508901	42053.	298.93829	-120.89981	59.38312	0.07168644	-0.35583711	8.07274400
6508901	42055.	300.24428	-125.39277	59.38327	0.07168835	-0.41982446	8.07274372
6508901	42057.	301.55027	-129.88563	59.38318	0.07168901	-0.48381229	8.07274381
6508901	42061.	304.16377	-138.87159	59.38321	0.07169231	-0.61179296	8.07274389
6508901	42063.	305.47064	-143.36469	59.38316	0.07169185	-0.67578333	8.07274409
6508901	42072.	311.34938	-163.58320	59.38324	0.07169377	-0.96373424	8.07274365
6508901	42074.	312.65723	-168.07616	59.38323	0.07169353	-0.02772800	8.07274365
6508901	42080.	316.57937	-181.55516	59.38326	0.07169326	-0.21969916	8.07274325
6508901	42082.	317.88603	-186.04808	59.38321	0.07169345	-0.28368853	8.07274363
6508901	42088.	321.80791	-199.52698	59.38330	0.07169118	-0.47566727	8.07274426
6508901	42090.	323.11524	-204.01984	59.38336	0.07169018	-0.53966291	8.07274440
6508901	42096.	327.05711	-217.49892	59.38322	0.07167647	-0.73170485	8.07275178
6508901	42098.	328.34585	-221.99172	59.38329	0.07168591	-0.79566354	8.07274576
6508901	42100.	329.65443	-226.48476	59.38347	0.07168476	-0.85967010	8.07274514
6508901	42104.	332.26655	-235.47074	59.38341	0.07168248	-0.98767736	8.07274696
6508901	42106.	333.57369	-239.96370	59.38341	0.07168168	-0.05168632	8.07274729

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42108.	334.88126	-244.45667	59.38347	0.07167984	-0.11569869	8.07274803
6508901	42110.	336.18921	-248.94954	59.38304	0.07167955	-0.17971445	8.07274867
6508901	42114.	338.80241	-257.93552	59.38339	0.07167706	-0.30774324	8.07275016
6508901	42120.	342.72329	-271.41397	59.38323	0.07167460	-0.49979442	8.07274914
6508901	42128.	347.94931	-289.38607	59.38330	0.07166939	-0.75585237	8.07274883
6508901	42130.	349.25438	-293.87900	59.38330	0.07166892	-0.81985946	8.07274873
6508901	42132.	350.55950	-298.37193	59.38299	0.07166825	-0.88386774	8.07274879
6508901	42134.	351.86515	-302.86498	59.38312	0.07166766	-0.94787627	8.07274862
6508901	42136.	353.17023	-307.35796	59.38324	0.07166670	-0.01188321	8.07274853
6508901	42138.	354.47653	-311.85084	59.38324	0.07166598	-0.07589390	8.07274855
6508901	42140.	355.78221	-316.34377	59.38317	0.07166608	-0.13990212	8.07274826
6508901	42142.	357.08697	-320.83675	59.38324	0.07166540	-0.20390713	8.07274826
6508901	42144.	358.39215	-325.32971	59.38325	0.07166503	-0.26791274	8.07274823
6508901	42146.	359.69773	-329.82264	59.38324	0.07166513	-0.33191890	8.07274806
6508901	42148.	1.00322	-334.31562	59.38326	0.07166491	0.60407649	8.07274767
6508901	42150.	2.30891	-338.80865	59.38340	0.07166495	0.54007175	8.07274756
6508901	42152.	3.61611	-343.30148	59.38334	0.07166507	0.47606322	8.07274765
6508901	42154.	4.92243	-347.79446	59.38325	0.07166512	0.41205759	8.07274735
6508901	42156.	6.22823	-352.28745	59.38326	0.07166516	0.34805496	8.07274722
6508901	42158.	7.53467	-356.78020	59.38347	0.07166433	0.28404955	8.07274742
6508901	42160.	8.83971	-1.27301	59.38342	0.07166495	0.22004983	8.07274690
6508901	42162.	10.14606	-5.76617	59.38341	0.07166584	0.15604680	8.07274679
6508901	42164.	11.45304	-10.25917	59.38344	0.07166560	0.09204224	8.07274679
6508901	42166.	12.75934	-14.75215	59.38334	0.07166570	0.02803926	8.07274668
6508901	42168.	14.06568	-19.24507	59.38328	0.07166574	0.96403709	8.07274658
6508901	42170.	15.37206	-23.73800	59.38326	0.07166584	0.90003582	8.07274637
6508901	42172.	16.67859	-28.23096	59.38325	0.07166588	0.83603417	8.07274625
6508901	42174.	17.98485	-32.72392	59.38327	0.07166608	0.77203459	8.07274614
6508901	42176.	19.29085	-37.21682	59.38327	0.07166661	0.70803592	8.07274602
6508901	42178.	20.59720	-41.70978	59.38333	0.07166698	0.64403739	8.07274591
6508901	42180.	21.90373	-46.20278	59.38324	0.07166745	0.58003814	8.07274569
6508901	42182.	23.21016	-50.69573	59.38318	0.07166729	0.51604091	8.07274558
6508901	42184.	24.51694	-55.18864	59.38323	0.07166730	0.45204287	8.07274528
6508901	42186.	25.82323	-59.68162	59.38329	0.07166788	0.38804733	8.07274528
6508901	42188.	27.12890	-64.17459	59.38321	0.07166803	0.32405367	8.07274508

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42190.	28.43515	-68.66754	59.38321	0.07166801	0.26005859	8.07274519
6508901	42194.	31.04835	-77.65336	59.38318	0.07166899	0.13206815	8.07274490
6508901	42196.	32.35451	-82.14637	59.38317	0.07166909	0.06807433	8.07274491
6508901	42198.	33.66077	-86.63928	59.38321	0.07166948	0.00408048	8.07274490
6508901	42200.	34.96731	-91.13224	59.38318	0.07166965	0.94008627	8.07274489
6508901	42202.	36.27382	-95.62523	59.38316	0.07166976	0.87609209	8.07274489
6508901	42204.	37.58033	-100.11823	59.38318	0.07167031	0.81209721	8.07274499
6508901	42206.	38.88714	-104.61116	59.38321	0.07167063	0.74810198	8.07274489
6508901	42208.	40.19305	-109.10404	59.38317	0.07167099	0.68410890	8.07274497
6508901	42210.	41.49949	-113.59704	59.38316	0.07167103	0.62011449	8.07274507
6508901	42212.	42.80592	-118.09000	59.38319	0.07167131	0.55611887	8.07274528
6508901	42214.	44.11210	-122.58296	59.38324	0.07167169	0.49212378	8.07274528
6508901	42216.	45.41883	-127.07595	59.38320	0.07167216	0.42812684	8.07274549
6508901	42218.	46.72547	-131.56891	59.38318	0.07167255	0.36412908	8.07274570
6508901	42220.	48.03146	-136.06188	59.38326	0.07167269	0.30013243	8.07274570
6508901	42222.	49.33779	-140.55474	59.38324	0.07167306	0.23613503	8.07274572
6508901	42224.	50.64426	-145.04770	59.38317	0.07167302	0.17213723	8.07274592
6508901	42226.	51.95067	-149.54067	59.38313	0.07167307	0.10813829	8.07274611
6508901	42231.	55.21640	-160.77302	59.38318	0.07167370	0.94814126	8.07274610
6508901	42233.	56.52269	-165.26599	59.38320	0.07167370	0.88414158	8.07274620
6508901	42235.	57.82886	-169.75894	59.38322	0.07167346	0.82014212	8.07274619
6508901	42237.	59.13563	-174.25191	59.38317	0.07167435	0.75614232	8.07274619
6508901	42241.	61.74794	-183.23789	59.38313	0.07167364	0.62814240	8.07274599
6508901	42243.	63.05429	-187.73075	59.38331	0.07167355	0.56414437	8.07274569
6508901	42245.	64.36064	-192.22379	59.38320	0.07167372	0.50014758	8.07274559
6508901	42247.	65.66708	-196.71679	59.38319	0.07167353	0.43615012	8.07274575
6508901	42249.	66.97335	-201.20972	59.38321	0.07167281	0.37215407	8.07274536
6508901	42251.	68.27942	-205.70266	59.38317	0.07167298	0.30815938	8.07274527
6508901	42253.	69.58586	-210.19566	59.38319	0.07167351	0.24416423	8.07274516
6508901	42255.	70.89215	-214.68866	59.38319	0.07167339	0.18016976	8.07274507
6508901	42257.	72.19834	-219.18157	59.38321	0.07167303	0.11617559	8.07274486
6508901	42259.	73.50444	-223.67452	59.38318	0.07167288	0.05218277	8.07274486
6508901	42261.	74.81060	-228.16753	59.38321	0.07167255	0.98818974	8.07274487
6508901	42263.	76.11687	-232.66041	59.38341	0.07167203	0.92419576	8.07274477
6508901	42265.	77.42309	-237.15343	59.38325	0.07167215	0.86020306	8.07274468

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42267.	78.72945	-241.64645	59.38324	0.07167244	0.79621029	8.07274459
6508901	42269.	80.03603	-246.13933	59.38339	0.07167177	0.73221695	8.07274480
6508901	42271.	81.34205	-250.63223	59.38341	0.07167185	0.66822529	8.07274451
6508901	42273.	82.64826	-255.12527	59.38322	0.07167147	0.60423402	8.07274430
6508901	42275.	83.95470	-259.61830	59.38319	0.07167164	0.54024257	8.07274440
6508901	42277.	85.26098	-264.11124	59.38320	0.07167201	0.47625092	8.07274438
6508901	42279.	86.56657	-268.60407	59.38323	0.07167193	0.41226186	8.07274406
6508901	42281.	87.87313	-273.09714	59.38326	0.07167159	0.34827146	8.07274395
6508901	42283.	89.17958	-277.59014	59.38324	0.07167173	0.28428107	8.07274421
6508901	42285.	90.48553	-282.08309	59.38330	0.07167115	0.22029086	8.07274398
6508901	42287.	91.79186	-286.57603	59.38333	0.07167069	0.15630223	8.07274355
6508901	42289.	93.09806	-291.06900	59.38326	0.07167115	0.09231494	8.07274345
6508901	42291.	94.40436	-295.56200	59.38322	0.07167135	0.02832714	8.07274336
6508901	42293.	95.71045	-300.05488	59.38329	0.07167095	0.96434122	8.07274307
6508901	42295.	97.01633	-304.54782	59.38312	0.07167078	0.90035796	8.07274257
6508901	42297.	98.32223	-309.04086	59.38323	0.07167087	0.83637502	8.07274271
6508901	42299.	99.62855	-313.53385	59.38309	0.07167102	0.77239114	8.07274261
6508901	42301.	100.93447	-318.02666	59.38309	0.07167122	0.70840981	8.07274218
6508901	42303.	102.24082	-322.51967	59.38315	0.07167114	0.64442861	8.07274197
6508901	42305.	103.54715	-327.01271	59.38325	0.07167077	0.58044772	8.07274195
6508901	42307.	104.85344	-331.50569	59.38323	0.07167015	0.51646717	8.07274175
6508901	42309.	106.15937	-335.99852	59.38315	0.07167007	0.45248950	8.07274132
6508901	42311.	107.46538	-340.49155	59.38306	0.07167056	0.38851299	8.07274131
6508901	42313.	108.77164	-344.98457	59.38313	0.07167013	0.32453467	8.07274131
6508901	42315.	110.07774	-349.47755	59.38307	0.07167012	0.26055821	8.07274110
6508901	42317.	111.38430	-353.97039	59.38303	0.07167088	0.19658146	8.07274080
6508901	42319.	112.69038	-358.46341	59.38308	0.07167111	0.13260649	8.07274100
6508901	42321.	113.99601	-2.95637	59.38313	0.07167085	0.06863176	8.07274091
6508901	42323.	115.30270	-7.44931	59.38317	0.07167034	0.00465530	8.07274062
6508901	42325.	116.60902	-11.94232	59.38318	0.07167052	0.94068084	8.07274062
6508901	42327.	117.91560	-16.43535	59.38330	0.07167114	0.87670478	8.07274092
6508901	42329.	119.22273	-20.92841	59.38329	0.07167015	0.81272698	8.07274039
6508901	42331.	120.52784	-25.42127	59.38321	0.07167042	0.74875674	8.07274040
6508901	42335.	123.14018	-34.40716	59.38318	0.07167081	0.62080783	8.07274049
6508901	42339.	125.75277	-43.39311	59.38322	0.07167118	0.49286027	8.07274039

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42343.	128.36583	-52.37908	59.38322	0.07167109	0.36490958	8.07274051
6508901	42347.	130.97847	-61.36497	59.38316	0.07167117	0.23696212	8.07274033
6508901	42351.	133.59107	-70.35093	59.38309	0.07167116	0.10901485	8.07274014
6508901	42355.	136.20451	-79.33686	59.38316	0.07167077	0.98106876	8.07273982
6508901	42359.	138.81747	-88.32279	59.38317	0.07167107	0.85312568	8.07273953
6508901	42363.	141.43052	-97.30869	59.38310	0.07167081	0.72518482	8.07273951
6508901	42367.	144.04374	-106.29464	59.38313	0.07167069	0.59724372	8.07273932
6508901	42371.	146.65673	-115.28061	59.38302	0.07167023	0.46930341	8.07273954
6508901	42375.	149.26962	-124.26653	59.38307	0.07167049	0.34136384	8.07273945
6508901	42379.	151.88282	-133.25243	59.38309	0.07167030	0.21342200	8.07273976
6508901	42383.	154.49596	-142.23838	59.38323	0.07167051	0.08548104	8.07273955
6508901	42387.	157.10904	-151.22432	59.38319	0.07167006	0.95753770	8.07273976
6508901	42391.	159.72220	-160.21025	59.38314	0.07167000	0.82959565	8.07273978
6508901	42395.	162.33508	-169.19619	59.38315	0.07166983	0.70165288	8.07273957
6508901	42399.	164.94786	-178.18211	59.38312	0.07166938	0.57371365	8.07273937
6508901	42403.	167.56094	-187.16803	59.38310	0.07166906	0.44577616	8.07273886
6508901	42407.	170.17381	-196.15399	59.38316	0.07166883	0.31784437	8.07273844
6508901	42411.	172.78646	-205.13993	59.38321	0.07166825	0.18991748	8.07273773
6508901	42417.	176.70575	-218.61881	59.38314	0.07166810	0.99803384	8.07273720
6508901	42421.	179.31845	-227.60477	59.38312	0.07166771	0.87011779	8.07273682
6508901	42425.	181.93156	-236.59073	59.38323	0.07166753	0.74220292	8.07273633
6508901	42429.	184.54444	-245.57662	59.38325	0.07166778	0.61429284	8.07273601
6508901	42433.	187.15755	-254.56256	59.38321	0.07166788	0.48638424	8.07273561
6508901	42437.	189.77038	-263.54851	59.38318	0.07166780	0.35847826	8.07273568
6508901	42441.	192.38320	-272.53451	59.38317	0.07166768	0.23057303	8.07273546
6508901	42445.	194.99611	-281.52051	59.38314	0.07166789	0.10266787	8.07273545
6508901	42449.	197.60869	-290.50643	59.38317	0.07166813	0.97476534	8.07273544
6508901	42453.	200.22159	-299.49241	59.38320	0.07166803	0.84686060	8.07273542
6508901	42457.	202.83474	-308.47836	59.38322	0.07166836	0.71895653	8.07273538
6508901	42461.	205.44767	-317.46433	59.38317	0.07166899	0.59105243	8.07273525
6508901	42465.	208.06059	-326.45028	59.38314	0.07166948	0.46315052	8.07273514
6508901	42469.	210.67376	-335.43622	59.38310	0.07167032	0.33524900	8.07273484
6508901	42477.	215.90059	-353.40801	59.38322	0.07167164	0.07944898	8.07273467
6508901	42481.	218.51242	-2.39401	59.38306	0.07167019	0.95155305	8.07273485
6508901	42485.	221.12553	-11.37994	59.38324	0.07167130	0.82365381	8.07273475

	EPOCH	GEOS-A PERIGEE	NODE	MEAN INCLINATION	ELEMENTS ECCENTRICITY	MEAN ANOMALY	A
6508901	42489.	223.73881	-20.36592	59.38316	0.07167111	0.69575333	8.07273493
6508901	42493.	226.35240	-29.35186	59.38315	0.07167174	0.56785639	8.07273503
6508901	42497.	228.96512	-38.33778	59.38308	0.07167102	0.43995492	8.07273515
6508901	42501.	231.57800	-47.32374	59.38314	0.07167068	0.31205415	8.07273506
6508901	42505.	234.19130	-56.30969	59.38316	0.07167089	0.18415154	8.07273499
6508901	42509.	236.80452	-65.29564	59.38319	0.07167070	0.05625112	8.07273479
6508901	42513.	239.41775	-74.28161	59.38317	0.07167024	0.92835207	8.07273441
6508901	42517.	242.03105	-83.26755	59.38317	0.07167019	0.80045682	8.07273414
6508901	42521.	244.64457	-92.25348	59.38318	0.07166997	0.67256387	8.07273368
6508901	42525.	247.25787	-101.23945	59.38320	0.07166941	0.54467446	8.07273351
6508901	42529.	249.87113	-110.22537	59.38321	0.07166950	0.41678782	8.07273323
6508901	42533.	252.48443	-119.21131	59.38323	0.07166891	0.28890220	8.07273312
6508901	42537.	255.09824	-128.19726	59.38313	0.07166845	0.16101732	8.07273302
6508901	42541.	257.71172	-137.18324	59.38314	0.07166832	0.03313325	8.07273301
6508901	42545.	260.32488	-146.16918	59.38320	0.07166770	0.90525020	8.07273300
6508901	42549.	262.93804	-155.15511	59.38315	0.07166733	0.77736607	8.07273311
6508901	42553.	265.55132	-164.14102	59.38316	0.07166706	0.64948099	8.07273321
6508901	42557.	268.16475	-173.12696	59.38318	0.07166655	0.52159552	8.07273314
6508901	42561.	270.77780	-182.11291	59.38318	0.07166589	-0.60628711	8.07273305
6508901	42565.	273.39048	-191.09884	59.38319	0.07166552	-0.73416963	8.07273308
6508901	42569.	276.00319	-200.08475	59.38319	0.07166439	-0.86205158	8.07273310
6508901	42573.	278.61584	-209.07066	59.38317	0.07166428	-0.98993338	8.07273313
6508901	42577.	281.22844	-218.05658	59.38316	0.07166532	-0.11781426	8.07273306
6508901	42581.	283.84110	-227.04251	59.38315	0.07166680	-0.24569402	8.07273274
6508901	42585.	286.45381	-236.02845	59.38315	0.07166879	-0.37357179	8.07273260
6508901	42589.	289.06647	-245.01441	59.38317	0.07167131	-0.50144098	8.07273187
6508901	42593.	291.67937	-254.00037	59.38324	0.07167380	-0.62929989	8.07273069
6508901	42597.	294.29212	-262.98635	59.38326	0.07167664	-0.75714751	8.07272961
6508901	42601.	296.90510	-271.97236	59.38325	0.07168001	-0.88498457	8.07272842
6508901	42605.	299.51835	-280.95838	59.38322	0.07168255	-0.01281213	8.07272718
6508901	42609.	302.13149	-289.94441	59.38324	0.07168554	-0.14062829	8.07272607
6508901	42613.	304.74514	-298.93047	59.38328	0.07168839	-0.26843616	8.07272481
6508901	42621.	309.97270	-316.90258	59.38325	0.07169347	-0.52402802	8.07272259
6508901	42625.	312.58703	-325.88869	59.38326	0.07169567	-0.65181287	8.07272182
6508901	42633.	317.81615	-343.86090	59.38325	0.07169842	-0.90736982	8.07272070

	EPOCH	GEOS-A PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42637.	320.43113	-352.84699	59.38324	0.07169930	-0.03514487	8.07272023
6508901	42641.	323.04650	-1.83309	59.38326	0.07169963	-0.16291940	8.07272001
6508901	42645.	325.66128	-10.81922	59.38330	0.07169954	-0.29069333	8.07272004
6508901	42649.	328.27639	-19.80523	59.38325	0.07169923	-0.41847070	8.07272031
6508901	42653.	330.89152	-28.79129	59.38327	0.07169861	-0.54625136	8.07272066
6508901	42657.	333.50665	-37.77738	59.38330	0.07169782	-0.67403666	8.07272105
6508901	42661.	336.12189	-46.76343	59.38335	0.07169667	-0.80182708	8.07272158
6508901	42665.	338.73686	-55.74941	59.38329	0.07169560	-0.92962175	8.07272207
6508901	42669.	341.35164	-64.73548	59.38326	0.07169374	-0.05742073	8.07272254
6508901	42677.	346.58001	-82.70747	59.38306	0.07169041	-0.31302347	8.07272305
6508901	42681.	349.19334	-91.69358	59.38314	0.07168854	-0.44081932	8.07272295
6508901	42685.	351.80672	-100.67953	59.38310	0.07168630	-0.56861392	8.07272274
6508901	42689.	354.41897	-109.66563	59.38311	0.07168445	-0.69640410	8.07272271
6508901	42693.	357.03094	-118.65176	59.38313	0.07168276	-0.82419056	8.07272230
6508901	42697.	359.64269	-127.63782	59.38316	0.07168137	-0.95197953	8.07272224
6508901	42701.	2.25378	-136.62391	59.38315	0.07168037	0.92023424	8.07272255
6508901	42705.	4.86661	-145.60997	59.38312	0.07168028	0.79244613	8.07272236
6508901	42709.	7.47957	-154.59603	59.38310	0.07168036	0.66465984	8.07272216
6508901	42713.	10.09257	-163.58207	59.38309	0.07168042	0.53687855	8.07272213
6508901	42717.	12.70531	-172.56810	59.38311	0.07168020	0.40909380	8.07272211
6508901	42721.	15.31856	-181.55414	59.38303	0.07168035	0.28130745	8.07272207
6508901	42725.	17.93121	-190.54018	59.38304	0.07168068	0.15352498	8.07272181
6508901	42729.	20.54386	-199.52621	59.38308	0.07168074	0.02574411	8.07272163
6508901	42733.	23.15689	-208.51224	59.38308	0.07168103	0.89796402	8.07272144
6508901	42737.	25.76971	-217.49827	59.38313	0.07168129	0.77018565	8.07272135
6508901	42741.	28.38257	-226.48440	59.38307	0.07168187	0.64240819	8.07272115
6508901	42745.	30.99538	-235.47043	59.38310	0.07168229	0.51463283	8.07272096
6508901	42749.	33.60814	-244.45646	59.38306	0.07168264	0.38685963	8.07272075
6508901	42753.	36.22134	-253.44254	59.38301	0.07168284	0.25908831	8.07272035
6508901	42757.	38.83425	-262.42870	59.38322	0.07168312	0.13131956	8.07272016
6508901	42761.	41.44698	-271.41470	59.38329	0.07168337	0.00355238	8.07272013
6508901	42765.	44.05996	-280.40076	59.38317	0.07168377	0.87578472	8.07272003
6508901	42769.	46.68778	-289.38684	59.38351	0.07169925	0.74796690	8.07272231
6508901	42782.	55.16589	-318.59156	59.38305	0.07168509	0.33276893	8.07272005
6508901	42786.	57.77864	-327.57761	59.38305	0.07168473	0.20500147	8.07272008

		GEOS-A	MEAN	ELEMENTS			
EPOCH	PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6508901	42790.	60.39217	-336.56363	59.38311	0.07168497	0.07723360	8.07271978
6508901	42794.	63.00525	-345.54968	59.38310	0.07168539	0.94946859	8.07271949
6508901	42798.	65.61754	-354.53573	59.38321	0.07168344	0.82170941	8.07271911
6508901	42802.	68.23132	-3.52176	59.38319	0.07168603	0.69394635	8.07271895
6508901	42806.	70.84172	-12.50796	59.38330	0.07169155	0.56619447	8.07271898
6508901	42810.	73.45472	-21.49413	59.38339	0.07169137	0.43843906	8.07271820
6508901	42818.	78.68187	-39.46607	59.38305	0.07168409	0.18292970	8.07271859
6508901	42822.	81.29479	-48.45211	59.38305	0.07168655	0.05517379	8.07271878
6508901	42826.	83.90722	-57.43820	59.38298	0.07168436	0.92742157	8.07271877
6508901	42830.	86.51938	-66.42418	59.38300	0.07168436	0.79966743	8.07271878
6508901	42834.	89.13151	-75.41021	59.38316	0.07168435	0.67191438	8.07271866
6508901	42838.	91.74397	-84.39628	59.38316	0.07168379	0.54416123	8.07271828
6508901	42854.	102.19371	-120.34049	59.38305	0.07168357	0.03318431	8.07271687
6508901	42858.	104.80620	-129.32657	59.38306	0.07168307	0.90544767	8.07271652
6508901	42862.	107.41828	-138.31262	59.38310	0.07168393	0.77771717	8.07271610
6508901	42866.	110.03077	-147.29868	59.38311	0.07168347	0.64999146	8.07271560
6508901	42870.	112.64349	-156.28479	59.38306	0.07168326	0.52226668	8.07271529
6508901	42874.	115.25586	-165.27087	59.38309	0.07168324	0.39454431	8.07271497
6508901	42878.	117.86842	-174.25694	59.38305	0.07168320	0.26682351	8.07271507
6508901	42882.	120.48127	-183.24301	59.38309	0.07168298	0.13910157	8.07271499
6508901	42886.	123.09356	-192.22912	59.38308	0.07168333	0.01138111	8.07271510
6508901	42890.	125.70628	-201.21521	59.38308	0.07168318	0.88365880	8.07271532
6508901	42894.	128.31893	-210.20132	59.38304	0.07168327	0.75593290	8.07271558
6508901	42898.	130.93140	-219.18740	59.38301	0.07168343	0.62820776	8.07271578
6508901	42902.	133.54432	-228.17343	59.38301	0.07168313	0.50047711	8.07271609
6508901	42906.	136.15741	-237.15955	59.38302	0.07168273	0.37274576	8.07271621
6508901	42910.	138.77025	-246.14568	59.38301	0.07168252	0.24501226	8.07271632
6508901	42914.	141.38356	-255.13172	59.38308	0.07168231	0.11727793	8.07271640
6508901	42918.	143.99654	-264.11777	59.38307	0.07168207	0.98954393	8.07271629
6508901	42922.	146.60977	-273.10385	59.38305	0.07168173	0.86181005	8.07271637
6508901	42926.	149.22327	-282.08991	59.38304	0.07168128	0.73407486	8.07271628
6508901	42930.	151.83675	-291.07599	59.38306	0.07168085	0.60633953	8.07271639
6508901	42934.	154.44993	-300.06208	59.38306	0.07168021	0.47860515	8.07271630
6508901	42938.	157.06346	-309.04813	59.38304	0.07167971	0.35086885	8.07271641
6508901	42942.	159.67627	-318.03423	59.38311	0.07167961	0.22313639	8.07271612

EPOCH	GEOS-A PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6508901	42946.	162.28942	-327.02029	59.38318	0.07167907	0.09540281	8.07271603
6508901	42950.	164.90257	-336.00630	59.38319	0.07167879	0.96767135	8.07271582
6508901	42954.	167.51586	-344.99238	59.38316	0.07167847	0.83994037	8.07271553
6508901	42958.	170.12891	-353.97841	59.38314	0.07167797	0.71221379	8.07271526
6508901	42962.	172.74188	-2.96447	59.38317	0.07167746	0.58448949	8.07271498
6508901	42966.	175.35454	-11.95054	59.38316	0.07167687	0.45676918	8.07271457
6508901	42970.	1#7.967X0	-20.93661	59.38309	0.07167675	0.32905168	8.07271436
6508901	42974.	180.58018	-29.92267	59.38309	0.07167615	0.20133630	8.07271407
6508901	42978.	183.19290	-38.90872	59.38307	0.07167581	0.07362419	8.07271385
6508901	42982.	185.80623	-47.89478	59.38310	0.07167577	0.94590973	8.07271386
6508901	42986.	188.41916	-56.88084	59.38314	0.07167576	0.81819872	8.07271376
6508901	42990.	191.03179	-65.86697	59.38321	0.07167550	0.69048740	8.07271365
6508901	42994.	193.64359	-74.85302	59.38313	0.07167428	0.56278047	8.07271382
6508901	42998.	196.25688	-83.83905	59.38311	0.07167450	0.43506749	8.07271376
6508901	43002.	198.86898	-92.82514	59.38311	0.07167368	0.30735861	8.07271373
6508901	43006.	201.48000	-101.81130	59.38341	0.07167138	0.17965218	8.07271375
6508901	43010.	204.09471	-110.79733	59.38321	0.07167303	0.05193422	8.07271396
6508901	43014.	206.70759	-119.78339	59.38326	0.07167328	0.92422071	8.07271408
6508901	43018.	209.32083	-128.76936	59.38313	0.07167373	0.79650391	8.07271428
6508901	43022.	211.93405	-137.75535	59.38305	0.07167372	0.66878782	8.07271428
6508901	43026.	214.54766	-146.74146	59.38309	0.07167419	0.54107044	8.07271405
6508901	43034.	219.77356	-164.71355	59.38312	0.07167476	0.28564336	8.07271396
6508901	43038.	-137.61451	-173.69957	59.38312	0.07167277	0.15793193	8.07271475
6508901	43042.	-135.00107	-182.68563	59.38311	0.07167256	0.03021720	8.07271473
6508901	43046.	-132.38806	-191.67168	59.38315	0.07167301	0.90250413	8.07271477
6508901	43050.	-129.77505	-200.65773	59.38315	0.07167333	0.77479022	8.07271461
6508901	43054.	-127.16168	-209.64381	59.38316	0.07167369	0.64707555	8.07271462
6508901	43058.	-124.54854	-218.62988	59.38316	0.07167399	0.51936125	8.07271439
6508901	43062.	-121.93524	-227.61594	59.38316	0.07167445	0.39164725	8.07271421
6508901	43066.	-119.32166	-236.60202	59.38314	0.07167479	0.26393337	8.07271390
6508901	43070.	-116.70820	-245.58806	59.38316	0.07167524	0.13621855	8.07271388
6508901	43074.	-114.09386	-254.57409	59.38320	0.07167465	0.00850427	8.07271359
6508901	43082.	251.13295	-272.54628	59.38311	0.07167428	0.75308746	8.07271298
6508901	43086.	253.74626	-281.53235	59.38309	0.07167386	0.62538352	8.07271273
6508901	43090.	256.35971	-290.51839	59.38310	0.07167383	0.49768182	8.07271246

	EPOCH	GEOS-A PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43094.	258.97296	-299.50444	59.38312	0.07167352	0.36998319	8.07271215
6508901	43098.	261.58620	-308.49052	59.38316	0.07167294	0.24228711	8.07271196
6508901	43102.	264.19940	-317.47656	59.38313	0.07167295	0.11459243	8.07271175
6508901	43106.	266.81235	-326.46263	59.38315	0.07167281	0.98689933	8.07271155
6508901	43110.	269.42534	-335.44872	59.38315	0.07167233	0.85920753	8.07271156
6508901	43114.	272.03798	-344.43476	59.38317	0.07167149	-0.26848638	8.07271160
6508901	43122.	277.26119	-2.40687	59.38317	0.07166796	-0.52388236	8.07271244
6508901	43126.	279.87214	-11.39290	59.38316	0.07166682	-0.65158170	8.07271263
6508901	43130.	282.48293	-20.37895	59.38315	0.07166583	-0.77927844	8.07271239
6508901	43134.	285.09381	-29.36501	59.38316	0.07166625	-0.90697055	8.07271208
6508901	43138.	287.70449	-38.35112	59.38317	0.07166683	-0.03465702	8.07271160
6508901	43147.	293.57543	-58.56968	59.38313	0.07167263	0.67809116	8.07270854
6508901	43151.	296.18723	-67.55576	59.38314	0.07167436	0.55042492	8.07270777
6508901	43155.	298.79885	-76.54182	59.38312	0.07167693	0.42276851	8.07270693
6508901	43159.	301.41039	-85.52789	59.38308	0.07167866	0.29511997	8.07270612
6508901	43163.	304.02249	-94.51397	59.38310	0.07168019	0.16747554	8.07270564
6508901	43167.	306.63514	-103.50006	59.38307	0.07168245	0.03983287	8.07270569
6508901	43171.	309.24788	-112.48616	59.38309	0.07168462	0.91219019	8.07270596
6508901	43175.	311.86100	-121.47229	59.38310	0.07168560	0.78454779	8.07270604
6508901	43179.	314.47504	-130.45842	59.38314	0.07168652	0.65690239	8.07270603
6508901	43183.	317.08941	-139.44454	59.38312	0.07168654	0.52925568	8.07270603
6508901	43187.	319.70425	-148.43065	59.38318	0.07168576	0.40160888	8.07270593
6508901	43191.	322.31949	-157.41678	59.38318	0.07168557	0.27396152	8.07270595
6508901	43195.	324.93434	-166.40292	59.38320	0.07168472	0.14631504	8.07270620
6508901	43199.	327.54945	-175.38900	59.38324	0.07168343	0.01866578	8.07270659
6508901	43207.	332.77952	-193.36125	59.38321	0.07168103	0.76335722	8.07270757
6508901	43211.	335.39466	-202.34726	59.38329	0.07167943	0.63569605	8.07270813
6508901	43215.	338.00967	-211.33338	59.38323	0.07167821	0.50803087	8.07270878
6508901	43219.	340.62440	-220.31954	59.38322	0.07167640	0.38036098	8.07270941
6508901	43223.	343.23837	-229.30551	59.38318	0.07167430	0.25268686	8.07271014
6508901	43227.	345.85281	-238.29156	59.38314	0.07167318	0.12501109	8.07271063
6508901	43231.	348.46611	-247.27766	59.38312	0.07167114	0.99733174	8.07271029
6508901	43235.	351.07864	-256.26371	59.38314	0.07166938	0.86965448	8.07271001
6508901	43239.	353.69101	-265.24977	59.38312	0.07166812	0.74197774	8.07270981
6508901	43247.	358.91361	-283.22197	59.38306	0.07166574	0.48663866	8.07270928

	EPOCH	GEOS-A PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43251.	1.52701	-292.20807	59.38304	0.07166651	0.35896548	8.07270931
6508901	43255.	4.14059	-301.19418	59.38306	0.07166646	0.23129798	8.07270861
6508901	43259.	6.75329	-310.18024	59.38306	0.07166616	0.10363530	8.07270831
6508901	43263.	9.36602	-319.16632	59.38305	0.07166645	0.97597448	8.07270813
6508901	43267.	11.97899	-328.15244	59.38306	0.07166616	0.84831469	8.07270785
6508901	43271.	14.59137	-337.13850	59.38306	0.07166592	0.72065892	8.07270763
6508901	43275.	17.20419	-346.12460	59.38306	0.07166626	0.59300396	8.07270749
6508901	43279.	19.81732	-355.11068	59.38304	0.07166612	0.46534937	8.07270726
6508901	43283.	22.43208	-4.09661	59.38312	0.07166736	0.33769138	8.07270671
6508901	43287.	25.04250	-13.08280	59.38306	0.07166667	0.21005009	8.07270677
6508901	43291.	27.65524	-22.06895	59.38314	0.07166659	0.08240377	8.07270646
6508901	43295.	30.26797	-31.05499	59.38313	0.07166665	0.95475919	8.07270635
6508901	43299.	32.88053	-40.04107	59.38310	0.07166779	0.82711561	8.07270621
6508901	43303.	35.49356	-49.02716	59.38311	0.07166824	0.69947375	8.07270589
6508901	43307.	38.10647	-58.01322	59.38309	0.07166863	0.57183424	8.07270567
6508901	43311.	40.71898	-66.99932	59.38305	0.07166937	0.44419674	8.07270567
6508901	43315.	43.33199	-75.98544	59.38306	0.07167005	0.31655789	8.07270567
6508901	43319.	45.94496	-84.97150	59.38305	0.07167048	0.18891932	8.07270569
6508901	43323.	48.55752	-93.95763	59.38301	0.07167128	0.06128003	8.07270591
6508901	43327.	51.17048	-102.94370	59.38302	0.07167211	0.93363813	8.07270611
6508901	43331.	53.78343	-111.92978	59.38301	0.07167250	0.80599411	8.07270630
6508901	43335.	56.39597	-120.91587	59.38300	0.07167328	0.67834919	8.07270651
6508901	43347.	64.23458	-147.87418	59.38298	0.07167432	0.29540055	8.07270698
6508901	43355.	69.45997	-165.84635	59.38302	0.07167454	0.04010192	8.07270676
6508901	43359.	72.07248	-174.83247	59.38300	0.07167429	0.91245404	8.07270674
6508901	43363.	74.68515	-183.81857	59.38304	0.07167439	0.78480691	8.07270650
6508901	43367.	77.29778	-192.80468	59.38302	0.07167403	0.65716166	8.07270634
6508901	43371.	79.91033	-201.79083	59.38301	0.07167361	0.52951833	8.07270627
6508901	43375.	82.52298	-210.77693	59.38305	0.07167355	0.40187564	8.07270607
6508901	43379.	85.13582	-219.76306	59.38303	0.07167327	0.27423352	8.07270606
6508901	43383.	87.74836	-228.74921	59.38301	0.07167291	0.14659338	8.07270596
6508901	43387.	90.36088	-237.73532	59.38304	0.07167269	0.01895287	8.07270593
6508901	43391.	92.97338	-246.72141	59.38304	0.07167239	0.89131468	8.07270573
6508901	43395.	95.58585	-255.70754	59.38304	0.07167182	0.76367624	8.07270553
6508901	43399.	98.19809	-264.69363	59.38304	0.07167163	0.63604250	8.07270518

EPOCH	GEOS-A PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6508901	43403.	100.81080	-273.67974	59.38304	0.07167103	0.50841028	8.07270458
6508901	43407.	103.42322	-282.66586	59.38304	0.07167097	0.38078445	8.07270416
6508901	43411.	106.03563	-291.65196	59.38306	0.07167071	0.25316211	8.07270355
6508901	43415.	108.64797	-300.63809	59.38306	0.07167022	0.12554533	8.07270328
6508901	43419.	111.26041	-309.62423	59.38304	0.07167048	0.99793208	8.07270272
6508901	43423.	113.87292	-318.61032	59.38305	0.07167037	0.87032203	8.07270241
6508901	43427.	116.48561	-327.59642	59.38302	0.07167006	0.74271543	8.07270196
6508901	43431.	119.09825	-336.58255	59.38300	0.07167017	0.61511145	8.07270165
6508901	43435.	121.71068	-345.56865	59.38303	0.07166954	0.48751237	8.07270120
6508901	43439.	124.32354	-354.55479	59.38302	0.07166990	0.35991365	8.07270100
6508901	43443.	126.93629	-3.54092	59.38304	0.07167025	0.23231786	8.07270081
6508901	43447.	129.54890	-12.52703	59.38304	0.07167013	0.10472305	8.07270063
6508901	43451.	132.16185	-21.51319	59.38311	0.07166966	0.97712913	8.07270065
6508901	43455.	134.77457	-30.49932	59.38309	0.07166999	0.84953541	8.07270054
6508901	43459.	137.38726	-39.48538	59.38310	0.07167006	0.72194227	8.07270054
6508901	43463.	140.00052	-48.47155	59.38306	0.07167052	0.59434800	8.07270024
6508901	43467.	142.61369	-57.45765	59.38307	0.07167033	0.46675627	8.07270016
6508901	43471.	145.22664	-66.44375	59.38304	0.07166958	0.33916821	8.07269998
6508901	43475.	147.83980	-75.42988	59.38303	0.07166983	0.21157902	8.07269991
6508901	43479.	150.45320	-84.41598	59.38303	0.07166999	0.08399138	8.07269991
6508901	43483.	153.06649	-93.40214	59.38302	0.07166968	0.95640291	8.07269979
6508901	43487.	155.67957	-102.38823	59.38296	0.07166975	0.82881520	8.07269998
6508901	43491.	158.29285	-111.37436	59.38300	0.07166983	0.70122556	8.07269996
6508901	43495.	160.90598	-120.36047	59.38298	0.07166949	0.57363623	8.07270027
6508901	43499.	163.51897	-129.34663	59.38299	0.07166982	0.44604429	8.07270029
6508901	43511.	171.35926	-156.30483	59.38315	0.07166765	0.06326837	8.07270018
6508901	43515.	173.97181	-165.29103	59.38315	0.07166801	0.93568443	8.07269926
6508901	43519.	176.58502	-174.27716	59.38302	0.07166785	0.80810191	8.07269886
6508901	43523.	179.19789	-183.26329	59.38306	0.07166813	0.68052651	8.07269836
6508901	43527.	-178.18721	-192.24943	59.38312	0.07166823	0.55294813	8.07269775
6508901	43531.	-175.57383	-201.23555	59.38301	0.07166761	0.42538043	8.07269734
6508901	43535.	-172.96062	-210.22167	59.38301	0.07166751	0.29781627	8.07269675
6508901	43539.	-170.34773	-219.20784	59.38304	0.07166762	0.17025810	8.07269629
6508901	43543.	-167.73444	-228.19392	59.38305	0.07166722	0.04270297	8.07269586
6508901	43547.	-165.12175	-237.18007	59.38303	0.07166706	0.91515356	8.07269554

	EPOCH	GEOS-A PERIGEE	NODE	MEAN INCLINATION	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43551.	-162.50858	-246.16624	59.38305	59.38305	0.07166737	0.78760664	8.07269511
6508901	43555.	-159.89622	-255.15234	59.38305	59.38305	0.07166667	0.66006469	8.07269506
6508901	43563.	-154.67073	-273.12468	59.38309	59.38309	0.07166678	0.40498675	8.07269475
6508901	43567.	-152.05792	-282.11082	59.38309	59.38309	0.07166639	0.27745061	8.07269410
6508901	43571.	-149.44477	-291.09701	59.38299	59.38299	0.07166668	0.14991381	8.07269453
6508901	43575.	-146.83278	-300.08307	59.38308	59.38308	0.07166671	0.02238060	8.07269404
6508901	43579.	-144.22012	-309.06919	59.38306	59.38306	0.07166652	0.89484651	8.07269425
6508901	43583.	-141.60746	-318.05531	59.38304	59.38304	0.07166687	0.76731665	8.07269419
6508901	43587.	-138.99460	-327.04145	59.38304	59.38304	0.07166709	0.63978856	8.07269386
6508901	43591.	-136.38123	-336.02759	59.38304	59.38304	0.07166715	0.51226321	8.07269372
6508901	43595.	-133.76842	-345.01373	59.38306	59.38306	0.07166745	0.38474084	8.07269339
6508901	43599.	-131.15538	-353.99988	59.38305	59.38305	0.07166811	0.25721817	8.07269330
6508901	43603.	-128.54203	-2.98601	59.38306	59.38306	0.07166830	0.12969706	8.07269309
6508901	43607.	-125.92938	-11.97215	59.38310	59.38310	0.07166884	1.00217823	8.07269277
6508901	43611.	-123.31630	-20.95829	59.38312	59.38312	0.07166918	0.87466008	8.07269249
6508901	43615.	-120.70252	-29.94445	59.38310	59.38310	0.07166951	0.74714162	8.07269215
6508901	43619.	-118.08940	-38.93061	59.38311	59.38311	0.07166978	0.61962690	8.07269169
6508901	43623.	-115.47617	-47.91674	59.38309	59.38309	0.07167031	0.49211091	8.07269122
6508901	43627.	-112.86224	-56.90290	59.38308	59.38308	0.07167069	0.36459929	8.07269076
6508901	43631.	-110.24872	-65.88905	59.38311	59.38311	0.07167081	0.23709180	8.07269009
6508901	43635.	-107.63512	-74.87517	59.38309	59.38309	0.07167130	0.10958908	8.07268936
6508901	43639.	-105.02135	-83.86135	59.38306	59.38306	0.07167149	0.98208950	8.07268884
6508901	43643.	-102.40777	-92.84750	59.38307	59.38307	0.07167143	0.85459402	8.07268822
6508901	43647.	-99.79402	-101.83365	59.38304	59.38304	0.07167109	0.72709988	8.07268790
6508901	43651.	-97.18029	-110.81982	59.38303	59.38303	0.07167095	0.59960899	8.07268767
6508901	43655.	-94.56675	-119.80597	59.38307	59.38307	0.07167067	0.47212139	8.07268742
6508901	43659.	-91.95305	-128.79210	59.38304	59.38304	0.07167023	0.34463310	8.07268730
6508901	43663.	270.66063	-137.77825	59.38302	59.38302	0.07166788	0.21714652	8.07268795
6508901	43667.	273.27466	-146.76434	59.38301	59.38301	0.07166152	0.08964451	8.07268990
6508901	43671.	275.88800	-155.75045	59.38301	59.38301	0.07165977	0.96215331	8.07268913
6508901	43675.	278.50116	-164.73659	59.38301	59.38301	0.07165869	0.83465892	8.07268886
6508901	43679.	281.11413	-173.72270	59.38301	59.38301	0.07165823	0.70716957	8.07268860
6508901	43683.	283.72691	-182.70882	59.38306	59.38306	0.07165888	0.57968443	8.07268813
6508901	43687.	286.33946	-191.69495	59.38307	59.38307	0.07166008	0.45220417	8.07268765

	EPOCH	GEOS-B PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41509.	25.43202	182.71428	105.80497	0.03199997	0.78256079	7.70504950
6800201	41517.	12.41612	193.92112	105.80468	0.03199868	0.42865398	7.70504690
6800201	41519.	9.17468	196.72289	105.80461	0.03199862	0.09014192	7.70504690
6800201	41521.	5.93406	199.52467	105.80467	0.03199845	0.75162837	7.70504660
6800201	41523.	2.69409	202.32646	105.80477	0.03199785	0.41311438	7.70504640
6800201	41525.	-0.54690	205.12812	105.80454	0.03199776	0.07460403	7.70504630
6800201	41527.	-3.78735	207.92987	105.80452	0.03199797	0.73609246	7.70504610
6800201	41529.	-7.02773	210.73161	105.80480	0.03199898	0.39758182	7.70504600
6800201	41531.	-10.26891	213.53346	105.80464	0.03199725	0.05907368	7.70504590
6800201	41533.	-13.50982	216.33525	105.80465	0.03199689	0.72056551	7.70504570
6800201	41535.	-16.74996	219.13707	105.80474	0.03199643	0.38205647	7.70504540
6800201	41537.	-19.99100	221.93879	105.80465	0.03199620	0.04355143	7.70504520
6800201	41539.	-23.23163	224.74052	105.80465	0.03199641	0.70504591	7.70504500
6800201	41541.	-26.47256	227.54231	105.80463	0.03199605	0.36654221	7.70504490
6800201	41543.	-29.71359	230.34404	105.80459	0.03199594	0.02803912	7.70504480
6800201	41545.	-32.95425	233.14579	105.80458	0.03199589	0.68953536	7.70504480
6800201	41547.	-36.19544	235.94759	105.80467	0.03199567	0.35103346	7.70504460
6800201	41549.	-39.43662	238.74929	105.80465	0.03199536	0.01253289	7.70504440
6800201	41551.	-42.67757	241.55105	105.80461	0.03199536	0.67403220	7.70504430
6800201	41553.	-45.91849	244.35280	105.80464	0.03199538	0.33553169	7.70504420
6800201	41555.	-49.15954	247.15455	105.80466	0.03199470	0.99703269	7.70504410
6800201	41557.	-52.40026	249.95633	105.80454	0.03199445	0.65853308	7.70504390
6800201	41559.	-55.64139	252.75804	105.80473	0.03199535	0.32003521	7.70504380
6800201	41561.	-58.88320	255.55986	105.80469	0.03199475	0.98154118	7.70504350
6800201	41563.	-62.12407	258.36164	105.80466	0.03199417	0.64304493	7.70504330
6800201	41565.	-65.36533	261.16338	105.80452	0.03199438	0.30455087	7.70504310
6800201	41567.	-68.60699	263.96512	105.80450	0.03199544	0.96606008	7.70504280
6800201	41569.	-71.84468	266.76681	105.80446	0.03199526	0.62755857	7.70504240
6800201	41573.	-78.32846	272.37039	105.80461	0.03199465	0.95058254	7.70504210
6800201	41575.	-81.56873	275.17211	105.80462	0.03199483	0.61209148	7.70504210
6800201	41577.	-84.80876	277.97376	105.80472	0.03199493	0.27359994	7.70504190
6800201	41579.	-88.05109	280.77571	105.80448	0.03199588	0.93511582	7.70504180
6800201	41581.	-91.29455	283.57740	105.80466	0.03199758	0.59663502	7.70504080
6800201	41583.	-94.53176	286.37911	105.80470	0.03199487	0.25814011	7.70504120
6800201	41585.	-97.77286	289.18088	105.80474	0.03199489	0.91965674	7.70504090

	EPOCH	GEOS-B PERIGEE	MEAN ELEMENTS NODE INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41587.	-101.01417	291.98267	105.80470	0.03199530	0.58117541	7.70504070
6800201	41589.	-104.25403	294.78438	105.80473	0.03199511	0.24269071	7.70504050
6800201	41591.	-107.49486	297.58620	105.80459	0.03199539	0.90421029	7.70504000
6800201	41593.	-110.73591	300.38796	105.80464	0.03199568	0.56573261	7.70503970
6800201	41595.	-113.97635	303.18971	105.80461	0.03199560	0.22725452	7.70503940
6800201	41597.	-117.21749	305.99150	105.80463	0.03199488	0.88878000	7.70503900
6800201	41599.	-120.45828	308.79334	105.80441	0.03199424	0.55030658	7.70503940
6800201	41601.	-123.69909	311.59504	105.80453	0.03199567	0.21183239	7.70503880
6800201	41603.	-126.93996	314.39678	105.80472	0.03199610	0.87336018	7.70503850
6800201	41605.	-130.18057	317.19855	105.80465	0.03199626	0.53488905	7.70503830
6800201	41607.	-133.42108	320.00034	105.80458	0.03199616	0.19641807	7.70503820
6800201	41609.	-136.66231	322.80209	105.80456	0.03199667	0.85794979	7.70503790
6800201	41611.	-139.90288	325.60385	105.80456	0.03199709	0.51948155	7.70503750
6800201	41613.	-143.14374	328.40561	105.80467	0.03199666	0.18101578	7.70503720
6800201	41615.	-146.38278	331.20742	105.80460	0.03199786	0.84254590	7.70503670
6800201	41617.	-149.62411	334.00909	105.80468	0.03199708	0.50408608	7.70503640
6800201	41619.	-152.86472	336.81098	105.80450	0.03199663	0.16562529	7.70503610
6800201	41621.	-156.10522	339.61278	105.80449	0.03199671	0.82716577	7.70503570
6800201	41623.	-159.34570	342.41447	105.80459	0.03199688	0.48870847	7.70503520
6800201	41625.	-162.58657	345.21615	105.80476	0.03199666	0.15025441	7.70503500
6800201	41627.	-165.82711	348.01800	105.80459	0.03199647	0.81180050	7.70503460
6800201	41629.	-169.06688	350.81982	105.80460	0.03199687	0.47334677	7.70503420
6800201	41631.	-172.30832	353.62161	105.80460	0.03199666	0.13489885	7.70503410
6800201	41633.	-175.54921	356.42345	105.80447	0.03199719	0.79644987	7.70503402
6800201	41635.	-178.78971	359.22514	105.80469	0.03199714	1.45800088	7.70503372
6800201	41637.	-182.02907	2.02693	105.80465	0.03199749	1.11955010	7.70503342
6800201	41639.	-185.26896	4.82876	105.80443	0.03199737	1.78110158	7.70503323
6800201	41641.	-188.50854	7.63051	105.80460	0.03199710	1.44265328	7.70503304
6800201	41643.	-191.74724	10.43220	105.80462	0.03199619	1.10420392	7.70503277
6800201	41645.	-194.98713	13.23411	105.80460	0.03199570	1.76575906	7.70503250
6800201	41647.	-198.22581	16.03593	105.80464	0.03199607	1.42731161	7.70503244
6800201	41649.	-201.46817	18.83768	105.80467	0.03199573	1.08887675	7.70503209
6800201	41651.	-204.70749	21.63954	105.80446	0.03199487	1.75043340	7.70503214
6800201	41653.	-207.94283	24.44128	105.80466	0.03199444	1.41197875	7.70503211
6800201	41655.	-211.18478	27.24306	105.80468	0.03199421	1.07354493	7.70503156

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS. INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41659.	-217.66707	32.84667	105.80445	0.03199401	1.39667442	7.70503304
6800201	41661.	-220.89507	35.64869	105.80461	0.03198434	1.05819876	7.70503333
6800201	41665.	-227.38693	41.25213	105.80456	0.03199207	1.38135916	7.70503114
6800201	41667.	-230.63146	44.05398	105.80448	0.03199329	1.04293563	7.70503095
6800201	41669.	-233.87065	46.85574	105.80459	0.03199309	1.70449678	7.70503096
6800201	41671.	-237.10913	49.65751	105.80468	0.03199196	1.36605623	7.70503078
6800201	41673.	-240.34989	52.45930	105.80480	0.03199186	1.02762305	7.70503060
6800201	41675.	-243.59196	55.26112	105.80479	0.03199221	1.68919477	7.70503023
6800201	41677.	-246.83182	58.06296	105.80473	0.03199147	1.35075997	7.70503048
6800201	41679.	-250.07079	60.86482	105.80465	0.03198994	1.01232339	7.70503038
6800201	41681.	-253.31392	63.66656	105.80482	0.03199131	1.67389901	7.70503029
6800201	41683.	-256.55474	66.46838	105.80480	0.03199137	1.33546672	7.70503031
6800201	41685.	-259.79535	69.27020	105.80480	0.03199152	1.99703388	7.70503050
6800201	41687.	-263.03572	72.07199	105.80486	0.03199103	1.65860080	7.70503034
6800201	41689.	-266.27691	74.87380	105.80489	0.03199230	1.32017107	7.70503018
6800201	41691.	-269.51823	77.67570	105.80482	0.03199192	1.98174168	7.70503012
6800201	41695.	-276.00061	83.27939	105.80472	0.03199257	0.30488395	7.70503015
6800201	41697.	-279.24052	86.08118	105.80480	0.03199159	0.96645150	7.70503007
6800201	41699.	-282.48122	88.88301	105.80482	0.03199051	0.62802227	7.70502987
6800201	41701.	-285.72242	91.68487	105.80485	0.03199172	0.28959598	7.70502947
6800201	41703.	-288.96489	94.48659	105.80467	0.03198901	0.95117249	7.70502947
6800201	41705.	-292.20453	97.28854	105.80496	0.03198944	0.61274335	7.70502898
6800201	41709.	-298.67941	102.89227	105.80469	0.03202124	0.93588540	7.70503268
6800201	41711.	-301.93073	105.69413	105.80482	0.03198990	0.59747867	7.70503138
6800201	41728.	-329.47980	129.50974	105.80490	0.03198422	0.72089957	7.70502848
6800201	41736.	-342.43559	140.71704	105.80487	0.03199265	0.36720802	7.70502758
6800201	41744.	-355.39949	151.92435	105.80511	0.03199074	0.01354477	7.70502748
6800201	41748.	-1.88117	157.52810	105.80505	0.03199126	0.33671410	7.70502708
6800201	41752.	-8.38077	163.13148	105.80481	0.03199274	0.65993259	7.70502788
6800201	41756.	-14.84770	168.73541	105.80495	0.03199106	0.98306880	7.70502648
6800201	41760.	-21.32495	174.33906	105.80499	0.03199121	0.30623317	7.70502648
6800201	41764.	-27.80749	179.94275	105.80494	0.03199124	0.62941418	7.70502619
6800201	41768.	-34.29065	185.54644	105.80492	0.03199117	0.95259979	7.70502589
6800201	41772.	-40.77071	191.15018	105.80490	0.03199171	0.27577861	7.70502569
6800201	41776.	-47.25231	196.75384	105.80490	0.03199170	0.59896506	7.70502539

	EPOCH	GEOS-B PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41780.	-53.73431	202.35752	105.80494	0.03199162	0.92215561	7.70502499
6800201	41782.	-56.97507	205.15934	105.80500	0.03199164	0.58375203	7.70502479
6800201	41784.	-60.21434	207.96122	105.80479	0.03199170	0.24534473	7.70502469
6800201	41786.	-63.45620	210.76299	105.80489	0.03199138	0.90694574	7.70502439
6800201	41788.	-66.69731	213.56484	105.80494	0.03199145	0.56854578	7.70502428
6800201	41790.	-69.93760	216.36669	105.80487	0.03199196	0.23014399	7.70502419
6800201	41792.	-73.17887	219.16855	105.80495	0.03199173	0.89174575	7.70502399
6800201	41794.	-76.41946	221.97033	105.80496	0.03199176	0.55334700	7.70502379
6800201	41796.	-79.65985	224.77219	105.80491	0.03199197	0.21494825	7.70502359
6800201	41798.	-82.90058	227.57404	105.80493	0.03199211	0.87655118	7.70502339
6800201	41800.	-86.14182	230.37586	105.80497	0.03199231	0.53815698	7.70502309
6800201	41802.	-89.38192	233.17769	105.80494	0.03199247	0.19976065	7.70502299
6800201	41804.	-92.62248	235.97954	105.80490	0.03199225	0.86136615	7.70502279
6800201	41806.	-95.86395	238.78135	105.80489	0.03199241	0.52297601	7.70502249
6800201	41808.	-99.10417	241.58316	105.80491	0.03199228	0.18458333	7.70502229
6800201	41810.	-102.34479	244.38501	105.80490	0.03199224	0.84619255	7.70502209
6800201	41812.	-105.58600	247.18686	105.80491	0.03199267	0.50780468	7.70502179
6800201	41814.	-108.82619	249.98866	105.80492	0.03199301	0.16941567	7.70502169
6800201	41816.	-112.06650	252.79052	105.80487	0.03199265	0.83102704	7.70502149
6800201	41818.	-115.30769	255.59236	105.80488	0.03199291	0.49264227	7.70502119
6800201	41820.	-118.54819	258.39418	105.80486	0.03199294	0.15425718	7.70502109
6800201	41822.	-121.78842	261.19602	105.80484	0.03199277	0.81587122	7.70502099
6800201	41824.	-125.02979	263.99784	105.80487	0.03199308	0.47748985	7.70502059
6800201	41826.	-128.27064	266.79966	105.80488	0.03199341	0.13910894	7.70502029
6800201	41828.	-131.51095	269.60149	105.80478	0.03199323	0.80072703	7.70502009
6800201	41830.	-134.75161	272.40332	105.80486	0.03199338	0.46234740	7.70501979
6800201	41832.	-137.99225	275.20513	105.80487	0.03199349	0.12396963	7.70501959
6800201	41834.	-141.23314	278.00701	105.80481	0.03199317	0.78559273	7.70501959
6800201	41836.	-144.47398	280.80880	105.80485	0.03199333	0.44721651	7.70501929
6800201	41838.	-147.71447	283.61062	105.80487	0.03199379	0.10884102	7.70501899
6800201	41840.	-150.95482	286.41247	105.80485	0.03199407	0.77046548	7.70501899
6800201	41842.	-154.19569	289.21429	105.80485	0.03199400	0.43209226	7.70501869
6800201	41844.	-157.43666	292.01613	105.80489	0.03199442	0.09372082	7.70501849
6800201	41846.	-160.67715	294.81798	105.80485	0.03199467	0.75534894	7.70501838
6800201	41848.	-163.91767	297.61979	105.80480	0.03199417	0.41697742	7.70501818

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41850.	-167.15823	300.42162	105.80483	0.03199437	0.07860746	7.70501798
6800201	41852.	-170.39833	303.22348	105.80481	0.03199425	0.74023686	7.70501788
6800201	41854.	-173.63897	306.02532	105.80478	0.03199427	0.40186804	7.70501768
6800201	41856.	-176.87996	308.82709	105.80485	0.03199467	0.06350182	7.70501738
6800201	41858.	-180.11988	311.62892	105.80489	0.03199450	1.72513359	7.70501728
6800201	41860.	-183.36021	314.43084	105.80470	0.03199484	1.38676725	7.70501706
6800201	41862.	-186.59941	317.23260	105.80483	0.03199505	1.04839935	7.70501683
6800201	41864.	-189.83855	320.03445	105.80476	0.03199522	1.71003217	7.70501671
6800201	41866.	-193.07786	322.83633	105.80469	0.03199542	1.37166538	7.70501669
6800201	41868.	-196.31776	325.63814	105.80475	0.03199544	1.03330115	7.70501649
6800201	41870.	-199.55699	328.43995	105.80477	0.03199557	1.69493550	7.70501639
6800201	41872.	-202.79602	331.24179	105.80475	0.03199543	1.35656939	7.70501629
6800201	41874.	-206.03560	334.04361	105.80479	0.03199533	1.01820524	7.70501620
6800201	41876.	-209.27497	336.84543	105.80480	0.03199520	1.67984083	7.70501622
6800201	41878.	-212.51445	339.64729	105.80472	0.03199485	1.34147688	7.70501625
6800201	41880.	-215.75423	342.44909	105.80476	0.03199455	1.00311383	7.70501618
6800201	41882.	-218.99352	345.25089	105.80478	0.03199417	1.66474923	7.70501621
6800201	41884.	-222.23332	348.05277	105.80464	0.03199370	1.32638653	7.70501615
6800201	41886.	-225.47291	350.85458	105.80469	0.03199343	1.98802295	7.70501619
6800201	41888.	-228.71280	353.65637	105.80478	0.03199312	1.64966017	7.70501613
6800201	41890.	-231.95318	356.45820	105.80471	0.03199286	1.31129894	7.70501607
6800201	41892.	-235.19442	359.26015	105.80434	0.03199251	1.97294041	7.70501601
6800201	41894.	-238.43422	2.06183	105.80489	0.03199238	1.63457734	7.70501625
6800201	41900.	-248.15643	10.46730	105.80481	0.03199187	1.61949336	7.70501643
6800201	41902.	-251.39732	13.26914	105.80466	0.03199161	1.28113255	7.70501632
6800201	41904.	-254.63806	16.07095	105.80465	0.03199147	1.94277093	7.70501642
6800201	41906.	-257.87891	18.87275	105.80472	0.03199131	1.60440923	7.70501651
6800201	41908.	-261.11977	21.67460	105.80463	0.03199119	1.26604751	7.70501651
6800201	41910.	-264.36109	24.47640	105.80458	0.03199133	1.92768664	7.70501661
6800201	41912.	-267.60203	27.27820	105.80469	0.03199137	1.58932449	7.70501670
6800201	41914.	-270.84274	30.08008	105.80478	0.03199119	0.25096131	7.70501670
6800201	41916.	-274.08396	32.88192	105.80457	0.03199123	0.91259953	7.70501669
6800201	41918.	-277.32488	35.68366	105.80468	0.03199118	0.57423649	7.70501670
6800201	41920.	-280.56590	38.48549	105.80475	0.03199103	0.23587406	7.70501670
6800201	41922.	-283.80683	41.28732	105.80470	0.03199134	0.89751136	7.70501679

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41924.	-287.04746	44.08915	105.80468	0.03199138	0.55914684	7.70501690
6800201	41926.	-290.28863	46.89098	105.80469	0.03199125	0.22078375	7.70501690
6800201	41928.	-293.52967	49.69278	105.80466	0.03199140	0.88242043	7.70501699
6800201	41930.	-296.77023	52.49458	105.80466	0.03199135	0.54405522	7.70501700
6800201	41932.	-300.01116	55.29642	105.80475	0.03199136	0.20569132	7.70501690
6800201	41934.	-303.25211	58.09825	105.80473	0.03199155	0.86732780	7.70501690
6800201	41936.	-306.49317	60.90004	105.80468	0.03199157	0.52896441	7.70501690
6800201	41938.	-309.73414	63.70187	105.80474	0.03199172	0.19060064	7.70501690
6800201	41940.	-312.97450	66.50370	105.80471	0.03199197	0.85223508	7.70501710
6800201	41942.	-316.21455	69.30550	105.80460	0.03199185	0.51386755	7.70501720
6800201	41944.	-319.45507	72.10733	105.80459	0.03199171	0.17550099	7.70501720
6800201	41946.	-322.69646	74.90913	105.80472	0.03199230	0.83713747	7.70501710
6800201	41948.	-325.93728	77.71097	105.80466	0.03199225	0.49877189	7.70501710
6800201	41950.	-329.17733	80.51279	105.80461	0.03199192	0.16040465	7.70501700
6800201	41952.	-332.41817	83.31462	105.80464	0.03199248	0.82204018	7.70501700
6800201	41954.	-335.65991	86.11645	105.80462	0.03199255	0.48367793	7.70501700
6800201	41956.	-338.89954	88.91821	105.80470	0.03199252	0.14530990	7.70501690
6800201	41958.	-342.14017	91.72004	105.80470	0.03199238	0.80694580	7.70501680
6800201	41960.	-345.38052	94.52186	105.80464	0.03199239	0.46858068	7.70501690
6800201	41962.	-348.62111	97.32370	105.80468	0.03199212	0.13021630	7.70501680
6800201	41964.	-351.86160	100.12552	105.80469	0.03199230	0.79185227	7.70501670
6800201	41966.	-355.10223	102.92731	105.80461	0.03199209	0.45348866	7.70501660
6800201	41968.	-358.34275	105.72916	105.80459	0.03199190	0.11512531	7.70501650
6800201	41970.	-1.58376	108.53097	105.80471	0.03199192	0.77676376	7.70501650
6800201	41972.	-4.82399	111.33276	105.80472	0.03199184	0.43839993	7.70501650
6800201	41974.	-8.06375	114.13461	105.80466	0.03199204	0.10003520	7.70501630
6800201	41976.	-11.30480	116.93645	105.80473	0.03199248	0.76167552	7.70501610
6800201	41978.	-14.54594	119.73820	105.80478	0.03199184	0.42331590	7.70501620
6800201	41982.	-21.02689	125.34190	105.80475	0.03199202	0.74659425	7.70501590
6800201	41984.	-24.26741	128.14369	105.80477	0.03199151	0.40823469	7.70501580
6800201	41986.	-27.50826	130.94552	105.80471	0.03199150	0.06987636	7.70501570
6800201	41988.	-30.74857	133.74732	105.80470	0.03199167	0.73151719	7.70501550
6800201	41990.	-33.98976	136.54904	105.80475	0.03199106	0.39316113	7.70501550
6800201	41992.	-37.22922	139.35098	105.80475	0.03199069	0.05480054	7.70501530
6800201	41994.	-40.47053	142.15285	105.80475	0.03199079	0.71644603	7.70501519

		GEOS-B	MEAN	ELEMENTS			
EPOCH	PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41996.	-43.71111	144.95460	105.80477	0.03199131	0.37809039	7.70501500
6800201	41998.	-46.95017	147.75643	105.80469	0.03199028	0.03973029	7.70501510
6800201	42000.	-50.19051	150.55832	105.80474	0.03199065	0.70137516	7.70501479
6800201	42002.	-53.43245	153.36007	105.80478	0.03199035	0.36302474	7.70501480
6800201	42004.	-56.67323	156.16194	105.80475	0.03199012	0.02467111	7.70501482
6800201	42006.	-59.91447	158.96380	105.80458	0.03199119	0.68631934	7.70501460
6800201	42008.	-63.15502	161.76551	105.80484	0.03199061	0.34796541	7.70501460
6800201	42010.	-66.39739	164.56730	105.80495	0.03198906	0.00961650	7.70501470
6800201	42014.	-72.87728	170.17110	105.80469	0.03198893	0.33290834	7.70501420
6800201	42016.	-76.11793	172.97287	105.80466	0.03198967	0.99455701	7.70501440
6800201	42018.	-79.35828	175.77472	105.80470	0.03198913	0.65620422	7.70501430
6800201	42020.	-82.59998	178.57653	105.80472	0.03198865	0.31785577	7.70501430
6800201	42022.	-85.84138	181.37829	105.80483	0.03198878	0.97950697	7.70501410
6800201	42026.	-92.32127	186.98206	105.80474	0.03198855	0.30280203	7.70501400
6800201	42028.	-95.56265	189.78379	105.80491	0.03198863	0.96445419	7.70501400
6800201	42030.	-98.80350	192.58569	105.80472	0.03198841	0.62610481	7.70501400
6800201	42032.	-102.04403	195.38755	105.80473	0.03198833	0.28775519	7.70501380
6800201	42034.	-105.28602	198.18935	105.80475	0.03198842	0.94940980	7.70501390
6800201	42036.	-108.52547	200.99127	105.80470	0.03198852	0.61105656	7.70501390
6800201	42038.	-111.76669	203.79307	105.80472	0.03198770	0.27270894	7.70501380
6800201	42040.	-115.00691	206.59487	105.80473	0.03198843	0.93435915	7.70501370
6800201	42042.	-118.24869	209.39672	105.80475	0.03198805	0.59601334	7.70501380
6800201	42044.	-121.48975	212.19855	105.80476	0.03198768	0.25766607	7.70501360
6800201	42046.	-124.73047	215.00036	105.80478	0.03198791	0.91931854	7.70501360
6800201	42052.	-134.45400	223.40586	105.80479	0.03198767	0.90427885	7.70501360
6800201	42056.	-140.93574	229.00954	105.80477	0.03198761	0.22758449	7.70501360
6800201	42060.	-147.41680	234.61326	105.80505	0.03198773	0.55088912	7.70501360
6800201	42072.	-166.86361	251.42427	105.80490	0.03198780	0.52081220	7.70501350
6800201	42076.	-173.34539	257.02798	105.80490	0.03198792	0.84411926	7.70501351
6800201	42080.	-179.82816	262.63164	105.80484	0.03198835	1.16742967	7.70501353
6800201	42084.	-186.30827	268.23529	105.80503	0.03198890	1.49073223	7.70501356
6800201	42092.	-199.26985	279.44286	105.80495	0.03198932	1.13733833	7.70501362
6800201	42096.	-205.75158	285.04661	105.80501	0.03198977	1.46064396	7.70501359
6800201	42100.	-212.23209	290.65037	105.80504	0.03199032	1.78394700	7.70501353
6800201	42104.	-218.71238	296.25413	105.80503	0.03199042	1.10725209	7.70501332

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42108.	-225.19305	301.85789	105.80507	0.03199048	1.43056031	7.70501312
6800201	42110.	-228.43386	304.65972	105.80496	0.03199068	1.09221631	7.70501307
6800201	42112.	-231.67363	307.46163	105.80503	0.03199067	1.75387029	7.70501291
6800201	42124.	-251.11697	324.27316	105.80485	0.03199001	1.72382736	7.70501163
6800201	42126.	-254.35670	327.07494	105.80517	0.03199009	1.38548841	7.70501151
6800201	42128.	-257.59610	329.87692	105.80514	0.03199013	1.04714999	7.70501108
6800201	42130.	-260.83666	332.67883	105.80508	0.03198990	1.70881645	7.70501085
6800201	42132.	-264.07981	335.48069	105.80531	0.03199044	1.37049212	7.70501021
6800201	42134.	-267.31818	338.28260	105.80530	0.03199021	1.03215475	7.70501027
6800201	42136.	-270.55915	341.08445	105.80522	0.03199114	0.69382674	7.70501005
6800201	42138.	-273.80007	343.88640	105.80519	0.03199051	0.35550013	7.70500973
6800201	42140.	-277.04002	346.68836	105.80524	0.03199073	0.01717104	7.70500973
6800201	42146.	-286.76084	355.09408	105.80524	0.03199160	0.00219093	7.70500893
6800201	42148.	-290.00180	357.89600	105.80513	0.03199043	0.66386874	7.70500873
6800201	42152.	-296.48363	3.49985	105.80522	0.03199084	0.98722568	7.70500843
6800201	42154.	-299.72312	6.30178	105.80525	0.03199081	0.64890188	7.70500822
6800201	42156.	-302.96271	9.10361	105.80527	0.03199084	0.31057884	7.70500812
6800201	42158.	-306.20310	11.90555	105.80520	0.03199067	0.97225863	7.70500792
6800201	42160.	-309.44414	14.70747	105.80507	0.03199110	0.63394174	7.70500762
6800201	42162.	-312.68571	17.50940	105.80516	0.03199085	0.29562711	7.70500752
6800201	42164.	-315.92617	20.31135	105.80523	0.03199092	0.95731000	7.70500742
6800201	42166.	-319.16567	23.11323	105.80522	0.03199099	0.61899136	7.70500721
6800201	42168.	-322.40575	25.91518	105.80519	0.03199093	0.28067503	7.70500701
6800201	42170.	-325.64631	28.71714	105.80518	0.03199077	0.94236058	7.70500691
6800201	42172.	-328.88606	31.51909	105.80519	0.03199075	0.60404490	7.70500671
6800201	42174.	-332.12621	34.32094	105.80515	0.03199048	0.26573117	7.70500651
6800201	42176.	-335.36700	37.12289	105.80520	0.03199051	0.92742026	7.70500630
6800201	42178.	-338.60687	39.92483	105.80517	0.03199048	0.58910786	7.70500600
6800201	42180.	-341.84732	42.72670	105.80521	0.03199048	0.25079806	7.70500590
6800201	42182.	-345.08812	45.52867	105.80518	0.03199042	0.91249040	7.70500570
6800201	42184.	-348.32634	48.33061	105.80520	0.03198971	0.57417576	7.70500570
6800201	42186.	-351.56844	51.13237	105.80486	0.03198955	0.23587298	7.70500550
6800201	42188.	-354.80894	53.93437	105.80513	0.03198942	0.89756604	7.70500539
6800201	42190.	-358.04946	56.73633	105.80519	0.03198941	0.55925972	7.70500519
6800201	42192.	-1.28919	59.53818	105.80509	0.03198887	0.22095223	7.70500509

	EPOCH	GEOS-B PERIGEE	MEAN ELEMENTS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42194.	-4.53039	62.34011	105.80515	0.03198932	0.88264928	7.70500499
6800201	42196.	-7.77100	65.14213	105.80531	0.03198907	0.54434529	7.70500479
6800201	42198.	-11.01099	67.94395	105.80506	0.03198848	0.20604051	7.70500468
6800201	42200.	-14.25190	70.74591	105.80517	0.03198882	0.86773830	7.70500468
6800201	42202.	-17.49227	73.54785	105.80520	0.03198860	0.52943496	7.70500448
6800201	42204.	-20.73298	76.34977	105.80520	0.03198782	0.19113389	7.70500438
6800201	42206.	-23.97419	79.15164	105.80516	0.03198744	0.85283458	7.70500418
6800201	42208.	-27.21498	81.95359	105.80523	0.03198753	0.51453423	7.70500418
6800201	42210.	-30.45476	84.75549	105.80522	0.03198719	0.17623226	7.70500398
6800201	42212.	-33.69554	87.55738	105.80512	0.03198711	0.83793329	7.70500397
6800201	42214.	-36.93640	90.35932	105.80512	0.03198684	0.49963501	7.70500388
6800201	42216.	-40.17690	93.16126	105.80513	0.03198621	0.16133612	7.70500377
6800201	42218.	-43.41787	95.96315	105.80505	0.03198613	0.82303905	7.70500377
6800201	42220.	-46.65853	98.76505	105.80512	0.03198624	0.48474081	7.70500377
6800201	42222.	-49.89907	101.56696	105.80513	0.03198593	0.14644287	7.70500357
6800201	42224.	-53.14020	104.36885	105.80507	0.03198550	0.80814701	7.70500347
6800201	42226.	-56.38028	107.17073	105.80506	0.03198556	0.46984837	7.70500347
6800201	42232.	-66.10331	115.57647	105.80511	0.03198476	0.45496263	7.70500327
6800201	42234.	-69.34408	118.37842	105.80536	0.03198442	0.11666696	7.70500327
6800201	42236.	-72.58361	121.18016	105.80536	0.03198443	0.77836877	7.70500317
6800201	42240.	-79.06694	126.78416	105.80534	0.03198409	0.10178476	7.70500297
6800201	42242.	-82.30674	129.58589	105.80521	0.03198411	0.76348838	7.70500297
6800201	42246.	-88.78957	135.18979	105.80505	0.03198405	0.08690406	7.70500298
6800201	42248.	-92.03114	137.99164	105.80507	0.03198398	0.74861240	7.70500288
6800201	42250.	-95.27200	140.79352	105.80515	0.03198393	0.41031892	7.70500288
6800201	42252.	-98.51268	143.59548	105.80512	0.03198353	0.07202509	7.70500278
6800201	42254.	-101.75316	146.39738	105.80513	0.03198346	0.73373114	7.70500268
6800201	42256.	-104.99412	149.19927	105.80513	0.03198362	0.39543862	7.70500278
6800201	42258.	-108.23544	152.00118	105.80502	0.03198341	0.05714706	7.70500268
6800201	42260.	-111.47675	154.80303	105.80514	0.03198348	0.71885571	7.70500269
6800201	42262.	-114.71745	157.60497	105.80516	0.03198345	0.38056260	7.70500279
6800201	42264.	-117.95869	160.40686	105.80502	0.03198341	0.04227056	7.70500269
6800201	42266.	-121.20192	163.20873	105.80504	0.03198357	0.70398475	7.70500269
6800201	42268.	-124.44071	166.01057	105.80515	0.03198404	0.36568709	7.70500269
6800201	42270.	-127.68264	168.81254	105.80509	0.03198348	0.02739747	7.70500259

		GEOS-B	MEAN ELEMENTS				
EPOCH	PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42272.	-130.92067	171.61433	105.80521	0.03198447	0.68909830	7.70500270
6800201	42274.	-134.16390	174.41621	105.80515	0.03198413	0.35081262	7.70500270
6800201	42276.	-137.40560	177.21817	105.80487	0.03198362	0.01252284	7.70500260
6800201	42278.	-140.64500	180.01998	105.80496	0.03198431	0.67422756	7.70500250
6800201	42280.	-143.88786	182.82182	105.80504	0.03198368	0.33594147	7.70500240
6800201	42282.	-147.12832	185.62384	105.80490	0.03198378	-0.00235118	7.70500241
6800201	42284.	-150.37047	188.42567	105.80497	0.03198441	0.65936151	7.70500231
6800201	42286.	-153.61110	191.22751	105.80499	0.03198500	0.32106990	7.70500241
6800201	42288.	-156.85192	194.02938	105.80488	0.03198496	0.98277817	7.70500241
6800201	42290.	-160.09302	196.83127	105.80497	0.03198499	0.64448747	7.70500231
6800201	42292.	-163.33299	199.63308	105.80491	0.03198574	0.30619424	7.70500241
6800201	42294.	-166.57415	202.43501	105.80476	0.03198528	0.96790331	7.70500242
6800201	42296.	-169.81556	205.23688	105.80479	0.03198381	0.62961343	7.70500242
6800201	42298.	-173.05806	208.03870	105.80494	0.03198517	0.29132704	7.70500222
6800201	42300.	-176.29704	210.84066	105.80466	0.03198552	0.95303100	7.70500222
6800201	42302.	-179.53777	213.64247	105.80495	0.03198601	1.61473986	7.70500221
6800201	42304.	-182.77833	216.44431	105.80500	0.03198591	1.27644877	7.70500209
6800201	42306.	-186.01872	219.24625	105.80491	0.03198572	1.93815757	7.70500224
6800201	42308.	-189.25966	222.04812	105.80473	0.03198572	1.59986793	7.70500208
6800201	42310.	-192.49960	224.84990	105.80490	0.03198662	1.26157613	7.70500192
6800201	42312.	-195.73989	227.65182	105.80506	0.03198624	1.92328631	7.70500196
6800201	42314.	-198.98218	230.45353	105.80469	0.03198691	1.58500172	7.70500159
6800201	42316.	-202.22171	233.25548	105.80472	0.03198666	1.24671090	7.70500151
6800201	42318.	-205.46176	236.05727	105.80488	0.03198690	1.90842193	7.70500154
6800201	42320.	-208.70241	238.85914	105.80470	0.03198691	1.57013496	7.70500137
6800201	42322.	-211.94281	241.66099	105.80478	0.03198664	1.23184785	7.70500139
6800201	42324.	-215.18332	244.46285	105.80483	0.03198673	1.89356139	7.70500132
6800201	42330.	-224.90491	252.86831	105.80484	0.03198641	1.87870675	7.70500063
6800201	42332.	-228.14595	255.67015	105.80471	0.03198689	1.54042554	7.70500039
6800201	42334.	-231.38571	258.47201	105.80483	0.03198727	1.20214110	7.70500019
6800201	42336.	-234.62688	261.27386	105.80483	0.03198722	1.86386223	7.70499999
6800201	42340.	-241.10810	266.87751	105.80455	0.03198724	1.18730218	7.70499990
6800201	42342.	-244.34889	269.67938	105.80475	0.03198755	1.84902397	7.70499951
6800201	42344.	-247.58923	272.48122	105.80468	0.03198755	1.51074492	7.70499951
6800201	42346.	-250.82987	275.28301	105.80469	0.03198747	1.17246722	7.70499942

		GEOS-B	MEAN	ELEMENTS			
EPOCH	PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42348.	-254.07045	278.08484	105.80469	0.03198743	1.83419031	7.70499922
6800201	42352.	-260.55229	283.68855	105.80476	0.03198708	1.15764022	7.70499903
6800201	42356.	-267.03390	289.29223	105.80467	0.03198729	1.48109238	7.70499864
6800201	42360.	-273.51520	294.89586	105.80463	0.03198737	0.80454734	7.70499824
6800201	42364.	-279.99705	300.49952	105.80476	0.03198746	0.12800730	7.70499795
6800201	42368.	-286.47849	306.10322	105.80480	0.03198724	0.45146956	7.70499775
6800201	42372.	-292.96105	311.70685	105.80472	0.03198745	0.77493723	7.70499735
6800201	42376.	-299.44296	317.31050	105.80469	0.03198757	0.09840679	7.70499695
6800201	42380.	-305.92477	322.91414	105.80466	0.03198810	0.42187995	7.70499655
6800201	42384.	-312.40641	328.51781	105.80470	0.03198812	0.74535632	7.70499635
6800201	42388.	-318.88758	334.12145	105.80467	0.03198819	0.06883460	7.70499595
6800201	42392.	-325.36860	339.72510	105.80466	0.03198845	0.39231477	7.70499565
6800201	42396.	-331.84966	345.32879	105.80472	0.03198849	0.71579816	7.70499545
6800201	42400.	-338.33090	350.93246	105.80473	0.03198834	0.03928435	7.70499525
6800201	42404.	-344.81245	356.53608	105.80469	0.03198838	0.36277400	7.70499495
6800201	42408.	-351.29407	2.13974	105.80470	0.03198842	0.68626647	7.70499465
6800201	42420.	-10.73889	18.95071	105.80462	0.03198840	0.65675623	7.70499415
6800201	42424.	-17.22065	24.55434	105.80467	0.03198875	0.98025633	7.70499396
6800201	42428.	-23.70156	30.15803	105.80472	0.03198877	0.30375625	7.70499375
6800201	42432.	-30.18306	35.76169	105.80470	0.03198850	0.62725997	7.70499355
6800201	42436.	-36.66427	41.36534	105.80473	0.03198830	0.95076403	7.70499336
6800201	42440.	-43.14550	46.96897	105.80465	0.03198860	0.27427053	7.70499316
6800201	42444.	-49.62623	52.57264	105.80441	0.03198844	0.59777796	7.70499295
6800201	42448.	-56.10782	58.17630	105.80466	0.03198873	0.92128834	7.70499285
6800201	42452.	-62.58953	63.77998	105.80461	0.03198839	0.24480116	7.70499266
6800201	42456.	-69.07052	69.38365	105.80452	0.03198882	0.56831401	7.70499245
6800201	42460.	-75.55266	74.98734	105.80458	0.03198866	0.89183171	7.70499225
6800201	42464.	-82.03429	80.59102	105.80459	0.03198842	0.21535015	7.70499205
6800201	42468.	-88.51525	86.19475	105.80465	0.03198890	0.53886856	7.70499185
6800201	42472.	-94.99614	91.79848	105.80478	0.03198795	0.86238852	7.70499175
6800201	42476.	-101.47863	97.40219	105.80467	0.03198807	0.18591445	7.70499155
6800201	42480.	-107.96016	103.00583	105.80479	0.03198818	0.50944003	7.70499135
6800201	42484.	-114.44162	108.60953	105.80477	0.03198878	0.83296669	7.70499105
6800201	42492.	-127.40584	119.81700	105.80475	0.03198840	0.48003406	7.70499065
6800201	42496.	-133.88703	125.42070	105.80472	0.03198965	0.80356850	7.70499023

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42500.	-140.36838	131.02449	105.80472	0.03198983	0.12710727	7.70498992
6800201	42504.	-146.85035	136.62824	105.80471	0.03198993	0.45064968	7.70498970
6800201	42508.	-153.33228	142.23199	105.80477	0.03199039	0.77419552	7.70498940
6800201	42512.	-159.81363	147.83577	105.80478	0.03199103	0.09774275	7.70498899
6800201	42516.	-166.29526	153.43953	105.80482	0.03199131	0.42129437	7.70498858
6800201	42520.	-172.77620	159.04328	105.80488	0.03199156	0.74484823	7.70498838
6800201	42528.	-185.73649	170.25088	105.80489	0.03199292	1.39195980	7.70498774
6800201	42532.	-192.21723	175.85469	105.80486	0.03199310	1.71552396	7.70498734
6800201	42536.	-198.69573	181.45849	105.80490	0.03199356	1.03908473	7.70498706
6800201	42540.	-205.17416	187.06228	105.80498	0.03199395	1.36264856	7.70498671
6800201	42544.	-211.65170	192.66609	105.80501	0.03199379	1.68621250	7.70498648
6800201	42548.	-218.12957	198.26992	105.80503	0.03199382	1.00977944	7.70498629
6800201	42552.	-224.60813	203.87376	105.80504	0.03199355	1.33335014	7.70498613
6800201	42556.	-231.08672	209.47759	105.80506	0.03199308	1.65692146	7.70498600
6800201	42560.	-237.56503	215.08144	105.80509	0.03199246	1.98049268	7.70498590
6800201	42564.	-244.04355	220.68531	105.80507	0.03199168	1.30406514	7.70498594
6800201	42568.	-250.52203	226.28917	105.80510	0.03199061	1.62763645	7.70498610
6800201	42572.	-257.00139	231.89303	105.80518	0.03198944	1.95120915	7.70498619
6800201	42576.	-263.48116	237.49687	105.80516	0.03198799	1.27478195	7.70498621
6800201	42580.	-269.96145	243.10076	105.80517	0.03198708	0.59835460	7.70498639
6800201	42584.	-276.44161	248.70465	105.80517	0.03198588	0.92192531	7.70498664
6800201	42588.	-282.92322	254.30852	105.80517	0.03198540	0.24550040	7.70498664
6800201	42592.	-289.40515	259.91240	105.80526	0.03198494	0.56907689	7.70498664
6800201	42596.	-295.88694	265.51630	105.80526	0.03198487	0.89265354	7.70498664
6800201	42600.	-302.36875	271.12021	105.80521	0.03198490	0.21622966	7.70498664
6800201	42604.	-308.85023	276.72411	105.80520	0.03198424	0.53980483	7.70498665
6800201	42608.	-315.33213	282.32800	105.80524	0.03198397	0.86338132	7.70498665
6800201	42612.	-321.81431	287.93189	105.80525	0.03198416	0.18695858	7.70498665
6800201	42616.	-328.29595	293.53579	105.80526	0.03198467	0.51053432	7.70498676
6800201	42620.	-334.77744	299.13966	105.80525	0.03198414	0.83410936	7.70498666
6800201	42624.	-341.25904	304.74362	105.80522	0.03198377	0.15768488	7.70498666
6800201	42628.	-347.74047	310.34752	105.80522	0.03198422	0.48126038	7.70498668
6800201	42632.	-354.22174	315.95138	105.80528	0.03198453	0.80483559	7.70498658
6800201	42636.	-0.70414	321.55531	105.80529	0.03198405	0.12841379	7.70498649
6800201	42640.	-7.18557	327.15920	105.80534	0.03198415	0.45199153	7.70498640

		GEOS-B	MEAN ELEMENTS				
EPOCH		PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42648.	-20.14821	338.36704	105.80526	0.03198451	0.09914750	7.70498622
6800201	42652.	-26.63005	343.97095	105.80532	0.03198440	0.42272950	7.70498602
6800201	42656.	-33.11177	349.57484	105.80536	0.03198502	0.74631260	7.70498584
6800201	42660.	-39.59282	355.17877	105.80531	0.03198529	0.06989625	7.70498574
6800201	42664.	-46.07355	0.78270	105.80522	0.03198539	0.39348098	7.70498535
6800201	42668.	-52.55430	6.38652	105.80528	0.03198574	0.71706807	7.70498506
6800201	42672.	-59.03519	11.99047	105.80528	0.03198535	0.04065941	7.70498487
6800201	42676.	-65.51649	17.59436	105.80528	0.03198611	0.36425396	7.70498457
6800201	42680.	-71.99722	23.19828	105.80532	0.03198637	0.68784975	7.70498417
6800201	42684.	-78.47875	28.80217	105.80530	0.03198642	0.01145194	7.70498378
6800201	42688.	-84.95945	34.40606	105.80528	0.03198628	0.33505495	7.70498348
6800201	42692.	-91.44027	40.01001	105.80521	0.03198645	0.65866159	7.70498318
6800201	42696.	-97.92049	45.61389	105.80525	0.03198632	0.98227069	7.70498278
6800201	42700.	-104.40087	51.21780	105.80529	0.03198628	0.30588323	7.70498238
6800201	42704.	-110.88259	56.82168	105.80523	0.03198582	0.62950382	7.70498207
6800201	42708.	-117.36440	62.42556	105.80521	0.03198625	0.95312779	7.70498167
6800201	42712.	-123.84551	68.02945	105.80520	0.03198629	0.27675301	7.70498126
6800201	42716.	-130.32710	73.63332	105.80517	0.03198626	0.60038367	7.70498095
6800201	42720.	-136.80901	79.23722	105.80520	0.03198591	0.92401842	7.70498065
6800201	42724.	-143.29162	84.84111	105.80517	0.03198621	0.24765790	7.70498035
6800201	42728.	-149.77280	90.44498	105.80516	0.03198651	0.57129729	7.70497994
6800201	42732.	-156.25365	96.04886	105.80522	0.03198643	0.89493820	7.70497973
6800201	42736.	-162.73467	101.65270	105.80525	0.03198656	0.21858134	7.70497953
6800201	42740.	-169.21619	107.25661	105.80508	0.03198688	0.54222873	7.70497922
6800201	42752.	-188.65865	124.06808	105.80533	0.03198611	1.51317300	7.70497867
6800201	42756.	-195.13908	129.67195	105.80492	0.03198529	1.83681882	7.70497917
6800201	42760.	-201.64547	135.27546	105.80511	0.03198848	1.16055851	7.70497799
6800201	42786.	-243.74801	171.70063	105.80483	0.03198653	1.76411937	7.70498042
6800201	42790.	-250.22850	177.30432	105.80480	0.03198581	1.08774973	7.70498045
6800201	42794.	-256.70936	182.90813	105.80474	0.03198668	1.41137960	7.70498086
6800201	42798.	-263.18925	188.51193	105.80494	0.03198545	1.73500315	7.70498104
6800201	42802.	-269.67247	194.11563	105.80458	0.03198703	0.05863725	7.70498047
6800201	42814.	-289.12617	210.92708	105.80465	0.03198092	0.02954944	7.70498070
6800201	42818.	-295.59797	216.53075	105.80459	0.03198497	0.35315640	7.70498050
6800201	42822.	-302.07724	222.13455	105.80455	0.03198562	0.67678439	7.70498060

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42826.	-308.56137	227.73830	105.80470	0.03198585	0.00042500	7.70498060
6800201	42830.	-315.03911	233.34212	105.80488	0.03198567	0.32404976	7.70498040
6800201	42834.	-321.52682	238.94584	105.80503	0.03198615	0.647770144	7.70498051
6800201	42838.	-328.00951	244.54953	105.80487	0.03198698	0.97133951	7.70498061
6800201	42858.	-0.42751	272.56822	105.80469	0.03198768	0.58953264	7.70498090
6800201	42862.	-6.89661	278.17193	105.80476	0.03198885	0.91313460	7.70498060
6800201	42866.	-13.37803	283.77564	105.80474	0.03198826	0.23676940	7.70498050
6800201	42870.	-19.85914	289.37935	105.80479	0.03198807	0.56040444	7.70498030
6800201	42874.	-26.33936	294.98307	105.80472	0.03198706	0.88403825	7.70498030
6800201	42878.	-32.82071	300.58680	105.80471	0.03198709	0.20767644	7.70498010
6800201	42882.	-39.30251	306.19051	105.80474	0.03198692	0.53131730	7.70497991
6800201	42886.	-45.78358	311.79426	105.80473	0.03198681	0.85495797	7.70498000
6800201	42890.	-52.26492	317.39798	105.80471	0.03198649	0.17859782	7.70497990
6800201	42894.	-58.74680	323.00169	105.80474	0.03198610	0.50224036	7.70497981
6800201	42898.	-65.22850	328.60542	105.80476	0.03198589	0.82588354	7.70497981
6800201	42902.	-71.70992	334.20914	105.80474	0.03198551	0.14952512	7.70497990
6800201	42906.	-78.19114	339.81286	105.80482	0.03198534	0.47316611	7.70497991
6800201	42910.	-84.67246	345.41656	105.80479	0.03198481	0.79680788	7.70497971
6800201	42914.	-91.15464	351.02031	105.80481	0.03198482	0.12045269	7.70497971
6800201	42918.	-97.63678	356.62402	105.80481	0.03198472	0.44409757	7.70497981
6800201	42922.	-104.11913	2.22773	105.80480	0.03198439	0.76774289	7.70497971
6800201	42926.	-110.60146	7.83144	105.80482	0.03198397	0.09138788	7.70497981
6800201	42930.	-117.08350	13.43520	105.80478	0.03198398	0.41503208	7.70497983
6800201	42934.	-123.56583	19.03892	105.80488	0.03198420	0.73867549	7.70498006
6800201	42938.	-130.04841	24.64268	105.80477	0.03198357	0.06231825	7.70498027
6800201	42942.	-136.53058	30.24641	105.80478	0.03198426	0.38595907	7.70498018
6800201	42946.	-143.01285	35.85013	105.80481	0.03198462	0.70959917	7.70498029
6800201	42950.	-149.49536	41.45390	105.80485	0.03198483	0.03323879	7.70498040
6800201	42954.	-155.97740	47.05766	105.80485	0.03198534	0.35687647	7.70498041
6800201	42958.	-162.45907	52.66138	105.80489	0.03198565	0.68051203	7.70498052
6800201	42962.	-168.94120	58.26514	105.80490	0.03198590	0.00414910	7.70498063
6800201	42966.	-175.42191	63.86893	105.80480	0.03198610	0.32778113	7.70498054
6800201	42970.	-181.90300	69.47276	105.80499	0.03198659	0.65141453	7.70498041
6800201	42974.	-188.38312	75.07653	105.80495	0.03198690	0.97504720	7.70498052
6800201	42978.	-194.86554	80.68029	105.80495	0.03198731	0.29868671	7.70498032

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42982.	-201.34415	86.28412	105.80512	0.03198672	0.62231754	7.70498023
6800201	42986.	-207.82795	91.88797	105.80466	0.03198775	0.94596369	7.70497993
6800201	42990.	-214.30669	97.49174	105.80507	0.03198683	0.26959895	7.70497963
6800201	42994.	-220.78927	103.09555	105.80492	0.03198808	0.59324711	7.70497933
6800201	42998.	-227.26841	108.69941	105.80508	0.03198706	0.91688937	7.70497903
6800201	43002.	-233.74937	114.30325	105.80514	0.03198750	0.24053993	7.70497863
6800201	43006.	-240.23079	119.90704	105.80501	0.03198919	0.56419606	7.70497823
6800201	43010.	-246.71089	125.51092	105.80501	0.03198739	0.88785380	7.70497774
6800201	43014.	-253.19196	131.11481	105.80514	0.03198599	0.21151892	7.70497723
6800201	43018.	-259.67336	136.71870	105.80511	0.03198612	0.53519016	7.70497663
6800201	43022.	-266.15432	142.32258	105.80511	0.03198605	0.85886574	7.70497614
6800201	43026.	87.36453	147.92645	105.80510	0.03198574	0.18254612	7.70497591
6800201	43030.	80.88351	153.53034	105.80515	0.03198613	0.50622823	7.70497561
6800201	43034.	74.40198	159.13422	105.80512	0.03198634	0.82991498	7.70497521
6800201	43038.	67.92076	164.73810	105.80510	0.03198641	0.15360441	7.70497501
6800201	43042.	61.43968	170.34200	105.80512	0.03198664	0.47729602	7.70497470
6800201	43046.	54.95885	175.94593	105.80514	0.03198674	0.80099024	7.70497429
6800201	43050.	48.47771	181.54980	105.80515	0.03198658	0.12468860	7.70497399
6800201	43054.	41.99681	187.15368	105.80511	0.03198691	0.44838960	7.70497368
6800201	43058.	35.51592	192.75757	105.80509	0.03198700	0.77209347	7.70497336
6800201	43062.	29.03516	198.36148	105.80516	0.03198686	0.09580053	7.70497306
6800201	43066.	22.55478	203.96536	105.80518	0.03198695	0.41950960	7.70497275
6800201	43070.	16.07396	209.56924	105.80515	0.03198716	0.74322332	7.70497243
6800201	43074.	9.59300	215.17314	105.80513	0.03198695	0.06694063	7.70497213
6800201	43078.	3.11263	220.77703	105.80514	0.03198650	0.39065815	7.70497192
6800201	43082.	-3.36787	226.38092	105.80518	0.03198627	0.71437886	7.70497170
6800201	43086.	-9.84843	231.98481	105.80511	0.03198609	0.03810136	7.70497159
6800201	43090.	-16.32928	237.58869	105.80511	0.03198581	0.36182601	7.70497138
6800201	43094.	-22.81006	243.19256	105.80518	0.03198538	0.68555217	7.70497127
6800201	43098.	-29.29069	248.79643	105.80517	0.03198488	0.00927939	7.70497105
6800201	43102.	-35.77146	254.40032	105.80511	0.03198458	0.33300805	7.70497105
6800201	43106.	-42.25272	260.00420	105.80514	0.03198417	0.65673915	7.70497093
6800201	43110.	-48.73369	265.60805	105.80515	0.03198370	0.98046979	7.70497082
6800201	43114.	-55.21502	271.21192	105.80512	0.03198315	0.30420229	7.70497091
6800201	43118.	-61.69570	276.81577	105.80510	0.03198269	0.62793225	7.70497100

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43147.	-108.68668	317.44364	105.80501	0.03197974	0.72496622	7.70497166
6800201	43151.	-115.16818	323.04751	105.80504	0.03197939	0.04869051	7.70497183
6800201	43155.	-121.65069	328.65136	105.80508	0.03197908	0.37241466	7.70497204
6800201	43159.	-128.13246	334.25518	105.80509	0.03197867	0.69613546	7.70497214
6800201	43163.	-134.61423	339.85905	105.80503	0.03197854	0.01985514	7.70497233
6800201	43167.	-141.09686	345.46286	105.80504	0.03197862	0.34357492	7.70497244
6800201	43171.	-147.57947	351.06669	105.80504	0.03197885	0.66729350	7.70497255
6800201	43175.	-154.06113	356.67052	105.80500	0.03197869	-0.00899174	7.70497275
6800201	43179.	-160.54373	2.27434	105.80500	0.03197867	0.31472343	7.70497295
6800201	43183.	-167.02642	7.87816	105.80503	0.03197906	0.63843793	7.70497307
6800201	43187.	-173.50733	13.48201	105.80501	0.03197953	0.96214772	7.70497297
6800201	43191.	-179.98900	19.08587	105.80497	0.03197969	0.28585868	7.70497298
6800201	43195.	-186.47098	24.68970	105.80492	0.03198013	0.60957098	7.70497298
6800201	43199.	-192.95169	30.29350	105.80494	0.03198026	0.93327967	7.70497288
6800201	43203.	-199.43235	35.89731	105.80493	0.03198038	0.25698893	7.70497277
6800201	43207.	-205.91316	41.50114	105.80486	0.03198081	0.58070079	7.70497268
6800201	43211.	-212.39470	47.10496	105.80483	0.03198085	0.90441611	7.70497238
6800201	43215.	-218.87560	52.70875	105.80488	0.03198086	0.22813297	7.70497196
6800201	43219.	-225.35620	58.31256	105.80486	0.03198121	0.55185203	7.70497179
6800201	43223.	-231.83757	63.91636	105.80484	0.03198128	0.87557448	7.70497169
6800201	43227.	-238.31884	69.52015	105.80485	0.03198124	0.19929860	7.70497139
6800201	43231.	-244.79960	75.12396	105.80487	0.03198126	0.52302402	7.70497109
6800201	43235.	-251.28070	80.72778	105.80488	0.03198132	0.84675417	7.70497069
6800201	43239.	-257.76173	86.33161	105.80483	0.03198154	0.17048793	7.70497039
6800201	43243.	-264.24333	91.93542	105.80482	0.03198141	0.49422623	7.70496999
6800201	43247.	89.27558	97.53923	105.80484	0.03198134	0.81796712	7.70496968
6800201	43251.	82.79456	103.14303	105.80486	0.03198104	0.14171155	7.70496928
6800201	43255.	76.31345	108.74682	105.80483	0.03198096	0.46545940	7.70496898
6800201	43259.	69.83216	114.35064	105.80484	0.03198073	0.78921141	7.70496868
6800201	43263.	63.35055	119.95446	105.80490	0.03198058	0.11296724	7.70496828
6800201	43267.	56.86887	125.55829	105.80486	0.03198049	0.43672648	7.70496798
6800201	43271.	50.38731	131.16211	105.80484	0.03198040	0.76048882	7.70496768
6800201	43275.	43.90635	136.76593	105.80486	0.03197961	0.08425211	7.70496728
6800201	43279.	37.42485	142.36975	105.80483	0.03197963	0.40801987	7.70496708
6800201	43283.	30.94285	147.97356	105.80480	0.03197939	0.73179301	7.70496678

	EPOCH	GEOS-B PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43287.	24.46091	153.57737	105.80478	0.03197925	0.05556775	7.70496654
6800201	43291.	17.97933	159.18116	105.80484	0.03197866	0.37934395	7.70496634
6800201	43295.	11.49934	164.78493	105.80487	0.03197879	0.70311822	7.70496614
6800201	43299.	5.01650	170.38882	105.80483	0.03197870	0.02690219	7.70496594

	EPOCH	LAGEOS PERIGEE	NODE	MEAN ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	42911.	-100.23617	31.27942	109.86554	0.00444341	0.21373202	12.27002501
7603901	42915.	-101.09078	32.65009	109.86551	0.00444337	0.76029105	12.27002496
7603901	42919.	-101.94172	34.02082	109.86554	0.00444332	0.30683991	12.27002496
7603901	42923.	-102.79051	35.39152	109.86554	0.00444318	0.85338274	12.27002496
7603901	42927.	-103.64743	36.76219	109.86552	0.00444332	0.39994818	12.27002493
7603901	42931.	-104.49362	38.13288	109.86552	0.00444325	0.94648395	12.27002493
7603901	42935.	-105.35100	39.50361	109.86553	0.00444313	0.49305089	12.27002493
7603901	42939.	-106.20108	40.87430	109.86552	0.00444316	0.03959737	12.27002493
7603901	42943.	-107.05756	42.24496	109.86552	0.00444336	0.58616182	12.27002493
7603901	42947.	-107.90911	43.61568	109.86552	0.00444300	0.13271252	12.27002493
7603901	42951.	-108.75774	44.98639	109.86552	0.00444292	0.67925498	12.27002493
7603901	42955.	-109.61658	46.35705	109.86552	0.00444298	0.22582588	12.27002493
7603901	42959.	-110.46079	47.72774	109.86551	0.00444286	0.77235643	12.27002493
7603901	42979.	-114.72668	54.58127	109.86552	0.00444266	0.50513295	12.27002493
7603901	42983.	-115.58671	55.95195	109.86553	0.00444296	0.05170733	12.27002493
7603901	42987.	-116.43185	57.32263	109.86555	0.00444279	0.59824044	12.27002493
7603901	42991.	-117.28984	58.69336	109.86556	0.00444292	0.14480917	12.27002493
7603901	42995.	-118.14027	60.06404	109.86558	0.00444288	0.69135697	12.27002483
7603901	42999.	-118.99717	61.43476	109.86557	0.00444299	0.23792263	12.27002483
7603901	43003.	-119.84971	62.80546	109.86560	0.00444281	0.78447656	12.27002483
7603901	43011.	-121.55997	65.54686	109.86552	0.00444286	0.87759812	12.27002483
7603901	43015.	-122.40523	66.91753	109.86553	0.00444256	0.42413183	12.27002483
7603901	43019.	-123.26109	68.28830	109.86556	0.00444283	0.97069476	12.27002483
7603901	43023.	-124.11564	69.65899	109.86553	0.00444267	0.51725423	12.27002483
7603901	43027.	-124.97182	71.02968	109.86553	0.00444286	0.06381806	12.27002483
7603901	43031.	-125.82554	72.40039	109.86553	0.00444261	0.61037501	12.27002484
7603901	43043.	-128.38083	76.51248	109.86551	0.00444246	0.25003037	12.27002474
7603901	43047.	-129.23820	77.88321	109.86556	0.00444294	0.79659747	12.27002484
7603901	43051.	-130.08928	79.25390	109.86555	0.00444285	0.34314732	12.27002474
7603901	43055.	-130.94737	80.62459	109.86554	0.00444312	0.88971685	12.27002474
7603901	43059.	-131.80159	81.99532	109.86555	0.00444309	0.43627550	12.27002474
7603901	43063.	-132.65109	83.36602	109.86555	0.00444282	0.98282098	12.27002474
7603901	43067.	-133.51309	84.73671	109.86554	0.00444335	0.52940112	12.27002474
7603901	43071.	-134.36008	86.10742	109.86554	0.00444301	0.07593978	12.27002474
7603901	43075.	-135.21475	87.47814	109.86556	0.00444330	0.62249968	12.27002474

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7603901	43079.	-136.06565	88.84884	109.86554	0.00444329	0.16904914	12.27002474
7603901	43083.	-136.92356	90.21953	109.86554	0.00444369	0.71561812	12.27002474
7603901	43087.	-137.78085	91.59024	109.86553	0.00444356	0.26218541	12.27002474
7603901	43091.	-138.62917	92.96096	109.86554	0.00444330	0.80872770	12.27002474
7603901	43095.	-139.49070	94.33163	109.86552	0.00444394	0.35530676	12.27002474
7603901	43099.	-140.33952	95.70234	109.86553	0.00444352	0.90185065	12.27002472
7603901	43103.	-141.19005	97.07307	109.86555	0.00444390	0.44839886	12.27002476
7603901	43107.	-142.04246	98.44376	109.86552	0.00444388	0.99495252	12.27002476
7603901	43111.	-142.90070	99.81446	109.86553	0.00444417	0.54152251	12.27002486
7603901	43115.	-143.75742	101.18516	109.86553	0.00444414	0.08808813	12.27002476
7603901	43119.	-144.60675	102.55587	109.86552	0.00444399	0.63463316	12.27002476
7603901	43123.	-145.46795	103.92654	109.86550	0.00444462	0.18121128	12.27002476
7603901	43127.	-146.31737	105.29726	109.86550	0.00444439	0.72775665	12.27002486
7603901	43131.	-147.16799	106.66798	109.86552	0.00444469	0.27430524	12.27002476
7603901	43135.	-148.01766	108.03867	109.86550	0.00444473	0.82085130	12.27002476
7603901	43139.	-148.87752	109.40939	109.86550	0.00444519	0.36742607	12.27002546
7603901	43148.	-150.80139	112.49345	109.86550	0.00444437	0.84718855	12.27002506
7603901	43152.	-151.65526	113.86413	109.86551	0.00444614	0.39374578	12.27002476
7603901	43160.	-153.35518	116.60553	109.86547	0.00444609	0.48683954	12.27002477
7603901	43164.	-154.20496	117.97622	109.86548	0.00444613	0.03338592	12.27002477
7603901	43168.	-155.06239	119.34694	109.86547	0.00444655	0.57995371	12.27002477
7603901	43172.	-155.92064	120.71763	109.86549	0.00444635	0.12652362	12.27002477
7603901	43176.	-156.76872	122.08831	109.86549	0.00444651	0.67306519	12.27002477
7603901	43180.	-157.62866	123.45901	109.86549	0.00444714	0.21963990	12.27002477
7603901	43184.	-158.47767	124.82970	109.86548	0.00444676	0.76618416	12.27002477
7603901	43188.	-159.32586	126.20041	109.86548	0.00444730	0.31272622	12.27002477
7603901	43192.	-160.17301	127.57112	109.86549	0.00444714	0.85926521	12.27002477
7603901	43196.	-161.03055	128.94179	109.86548	0.00444762	0.40583328	12.27002476
7603901	43200.	-161.89090	130.31252	109.86551	0.00444754	0.95240909	12.27002476
7603901	43203.	-162.52671	131.34053	109.86548	0.00444728	0.11231457	12.27002471
7603901	43207.	-163.37840	132.71121	109.86547	0.00444805	0.65886646	12.27002475
7603901	43211.	-164.23979	134.08194	109.86549	0.00444801	0.20544561	12.27002475
7603901	43215.	-165.08427	135.45263	109.86550	0.00444807	0.75197736	12.27002475
7603901	43219.	-165.93339	136.82333	109.86550	0.00444803	0.29852206	12.27002465
7603901	43223.	-166.78676	138.19402	109.86551	0.00444839	0.84507879	12.27002465

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7603901	43227.	-167.64673	139.56472	109.86551	0.00444849	0.39165374	12.27002465
7603901	43231.	-168.50150	140.93543	109.86552	0.00444800	0.93821441	12.27002465
7603901	43235.	-169.35341	142.30612	109.86551	0.00444891	0.48476701	12.27002464
7603901	43239.	-170.20808	143.67682	109.86552	0.00444867	0.03132723	12.27002464
7603901	43243.	-171.05463	145.04754	109.86552	0.00444878	0.57786498	12.27002464
7603901	43247.	-171.90363	146.41824	109.86551	0.00444893	0.12440954	12.27002464
7603901	43251.	-172.75696	147.78893	109.86552	0.00444913	0.67096631	12.27002454
7603901	43255.	186.38403	149.15963	109.86552	0.00444934	0.21753865	12.27002454
7603901	43259.	185.53090	150.53033	109.86551	0.00444875	0.76409485	12.27002454
7603901	43263.	184.67871	151.90103	109.86552	0.00444948	0.31064837	12.27002464
7603901	43267.	183.82215	153.27173	109.86552	0.00444953	0.85721405	12.27002454
7603901	43271.	182.97582	154.64244	109.86553	0.00444947	0.40375146	12.27002454
7603901	43275.	182.12568	156.01313	109.86553	0.00444938	0.95029930	12.27002454
7603901	43279.	181.27613	157.38379	109.86551	0.00444961	0.49684538	12.27002454
7603901	43283.	180.40717	158.75456	109.86555	0.00444979	0.04344637	12.27002464
7603901	43287.	179.55751	160.12524	109.86553	0.00444953	0.58999282	12.27002454
7603901	43291.	178.70999	161.49594	109.86552	0.00444990	0.13653346	12.27002454
7603901	43295.	177.85230	162.86662	109.86552	0.00444993	0.68310241	12.27002454
7603901	43299.	177.00294	164.23733	109.86553	0.00444996	0.22964819	12.27002443
7603901	43303.	176.15298	165.60804	109.86553	0.00444978	0.77619574	12.27002453
7603901	43307.	175.30219	166.97874	109.86554	0.00444994	0.32274566	12.27002443
7603901	43311.	174.44404	168.34944	109.86552	0.00445021	0.86931605	12.27002453
7603901	43315.	173.58548	169.72015	109.86554	0.00444976	0.41588753	12.27002453
7603901	43323.	171.88562	172.46154	109.86556	0.00445023	0.50898253	12.27002463
7603901	43329.	170.60776	174.51759	109.86553	0.00445012	0.82881221	12.27002443
7603901	43333.	169.75480	175.88829	109.86553	0.00444997	0.37536820	12.27002443
7603901	43337.	168.90145	177.25899	109.86553	0.00445028	0.92192521	12.27002443
7603901	43341.	168.04118	178.62969	109.86552	0.00445005	0.46850173	12.27002443
7603901	43345.	167.19020	180.00039	109.86552	0.00444987	0.01505228	12.27002443
7603901	43349.	166.33834	181.37110	109.86552	0.00445050	0.56160520	12.27002443
7603901	43353.	165.48115	182.74180	109.86553	0.00445027	0.10817299	12.27002443
7603901	43357.	164.63568	184.11251	109.86551	0.00445014	0.65470822	12.27002443
7603901	43361.	163.78124	185.48320	109.86551	0.00445011	0.20126836	12.27002442
7603901	43365.	162.92966	186.85391	109.86551	0.00445037	0.74782071	12.27002442
7603901	43369.	162.07111	188.22459	109.86550	0.00445033	0.29439251	12.27002442

	EPOCH	LAGEOS PERIGEE	MEAN NODE	ELEMENTS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43373.	161.21656	189.59528	109.86550	0.00444997	0.84095298	12.27002442
7603901	43377.	160.36690	190.96598	109.86550	0.00445071	0.38749993	12.27002442
7603901	43381.	159.51164	192.33669	109.86549	0.00445028	0.93406235	12.27002447
7603901	43385.	158.66522	193.70738	109.86550	0.00445026	0.48060038	12.27002447
7603901	43389.	157.81068	195.07807	109.86549	0.00445014	0.02716067	12.27002447
7603901	43393.	156.95912	196.44878	109.86549	0.00445049	0.57371282	12.27002447
7603901	43397.	156.10387	197.81948	109.86548	0.00445047	0.12027553	12.27002436
7603901	43401.	155.24533	199.19015	109.86549	0.00445020	0.66684691	12.27002446
7603901	43405.	154.39670	200.56085	109.86549	0.00445097	0.21339100	12.27002446
7603901	43409.	153.54113	201.93154	109.86548	0.00445059	0.75995457	12.27002446
7603901	43413.	152.69364	203.30223	109.86548	0.00445063	0.30649555	12.27002446
7603901	43421.	150.98906	206.04362	109.86548	0.00445065	0.39960398	12.27002446
7603901	43425.	150.13086	207.41430	109.86547	0.00445077	0.94617476	12.27002446
7603901	43429.	149.27510	208.78499	109.86548	0.00445063	0.49273880	12.27002436
7603901	43433.	148.42967	210.15568	109.86550	0.00445127	0.03927389	12.27002435
7603901	43437.	147.57139	211.52638	109.86548	0.00445086	0.58584496	12.27002435
7603901	43441.	146.72343	212.89707	109.86548	0.00445088	0.13238740	12.27002435
7603901	43445.	145.87114	214.26776	109.86549	0.00445076	0.67894174	12.27002435
7603901	43449.	145.01957	215.63845	109.86549	0.00445107	0.22549393	12.27002435
7603901	43453.	144.16431	217.00913	109.86549	0.00445132	0.77205667	12.27002435
7603901	43457.	143.30672	218.37982	109.86550	0.00445093	0.31862588	12.27002435
7603901	43461.	142.46491	219.75049	109.86551	0.00445150	0.86515113	12.27002445
7603901	43463.	142.03189	220.43587	109.86550	0.00445144	0.63844730	12.27002435
7603901	43467.	141.17994	221.80656	109.86549	0.00445122	0.18500087	12.27002435
7603901	43471.	140.33018	223.17724	109.86551	0.00445127	0.73154832	12.27002435
7603901	43475.	139.47706	224.54794	109.86552	0.00445117	0.27810497	12.27002435
7603901	43479.	138.62730	225.91863	109.86551	0.00445159	0.82465240	12.27002435
7603901	43483.	137.76646	227.28931	109.86552	0.00445140	0.37123061	12.27002435
7603901	43487.	136.92037	228.66000	109.86553	0.00445178	0.91776804	12.27002435
7603901	43491.	136.06688	230.03071	109.86553	0.00445195	0.46432575	12.27002435
7603901	43495.	135.21303	231.40139	109.86551	0.00445176	0.01088473	12.27002435
7603901	43499.	134.36506	232.77206	109.86553	0.00445191	0.55742739	12.27002445
7603901	43513.	131.39066	237.56954	109.86562	0.00445149	0.97034519	12.27002466
7603901	43525.	128.81928	241.68160	109.86558	0.00445193	0.61004832	12.27002436
7603901	43529.	127.96545	243.05231	109.86554	0.00445184	0.15660731	12.27002426

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7603901	43533.	127.11397	244.42300	109.86555	0.00445205	0.70315965	12.27002436
7603901	43537.	126.26254	245.79370	109.86555	0.00445213	0.24971195	12.27002436
7603901	43541.	125.40469	247.16436	109.86556	0.00445199	0.79628215	12.27002426
7603901	43545.	124.56118	248.53507	109.86557	0.00445239	0.34281237	12.27002436
7603901	43549.	123.69994	249.90578	109.86555	0.00445207	0.88939213	12.27002436
7603901	43553.	122.85075	251.27647	109.86559	0.00445207	0.43593811	12.27002436
7603901	43557.	121.99955	252.64713	109.86560	0.00445192	0.98248999	12.27002436
7603901	43561.	121.14432	254.01787	109.86557	0.00445203	0.52905274	12.27002436
7603901	43565.	120.28612	255.38858	109.86556	0.00445221	0.07562419	12.27002436
7603901	43569.	119.43807	256.75918	109.86560	0.00445187	0.62216700	12.27002426
7603901	43573.	118.58962	258.12995	109.86558	0.00445220	0.16871103	12.27002426
7603901	43577.	117.72800	259.50067	109.86557	0.00445195	0.71529172	12.27002426
7603901	43581.	116.87800	260.87133	109.86558	0.00445202	0.26184041	12.27002426
7603901	43585.	116.02210	262.24202	109.86557	0.00445198	0.80840540	12.27002426
7603901	43589.	115.16860	263.61276	109.86559	0.00445184	0.35496345	12.27002426
7603901	43593.	114.31999	264.98344	109.86556	0.00445204	0.90150815	12.27002426
7603901	43597.	113.46051	266.35412	109.86556	0.00445202	0.44808286	12.27002426
7603901	43601.	112.61459	267.72482	109.86556	0.00445230	0.99462005	12.27002426
7603901	43605.	111.75684	269.09549	109.86554	0.00445225	0.54119004	12.27002436
7603901	43609.	110.90305	270.46618	109.86554	0.00445230	0.08774923	12.27002426
7603901	43613.	110.04690	271.83688	109.86553	0.00445238	0.63431485	12.27002426
7603901	43617.	109.19547	273.20759	109.86555	0.00445199	0.18086721	12.27002426
7603901	43621.	108.34694	274.57825	109.86556	0.00445214	0.72741167	12.27002426
7603901	43632.	105.99651	278.34766	109.86553	0.00445229	0.98045627	12.27002427
7603901	43636.	105.14330	279.71832	109.86555	0.00445198	0.52701379	12.27002427
7603901	43640.	104.28996	281.08900	109.86556	0.00445207	0.07357166	12.27002427
7603901	43644.	103.43441	282.45971	109.86555	0.00445205	0.62013574	12.27002427
7603901	43648.	102.58672	283.83040	109.86555	0.00445211	0.16667791	12.27002427
7603901	43668.	98.31572	290.68414	109.86553	0.00445236	0.89948264	12.27002417
7603901	43672.	97.46237	292.05482	109.86553	0.00445236	0.44604077	12.27002417
7603901	43676.	96.61147	293.42552	109.86553	0.00445218	0.99259205	12.27002417
7603901	43680.	95.75830	294.79623	109.86553	0.00445226	0.53914965	12.27002412
7603901	43684.	94.90429	296.16693	109.86555	0.00445212	0.08570960	12.27002422
7603901	43688.	94.04954	297.53763	109.86554	0.00445211	0.63227149	12.27002412
7603901	43692.	93.19549	298.90833	109.86555	0.00445211	0.17883166	12.27002412

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7603901	43704.	90.63521	303.02043	109.86556	0.00445205	0.81850684	12.27002412
7603901	43708.	89.78217	304.39113	109.86555	0.00445214	0.36506418	12.27002412
7603901	43712.	88.94841	305.76181	109.86552	0.00445185	0.91156750	12.27002422
7603901	43716.	88.07161	307.13252	109.86557	0.00445188	0.45819129	12.27002412
7603901	43720.	87.21730	308.50323	109.86556	0.00445197	0.00475211	12.27002412
7603901	43724.	86.36343	309.87395	109.86557	0.00445191	0.55131174	12.27002412
7603901	43728.	85.50845	311.24465	109.86557	0.00445191	0.09787457	12.27002412
7603901	43732.	84.65573	312.61535	109.86557	0.00445180	0.64443108	12.27002412
7603901	43736.	83.80180	313.98607	109.86557	0.00445186	0.19099099	12.27002412
7603901	43740.	82.94673	315.35677	109.86557	0.00445179	0.73755388	12.27002414
7603901	43744.	82.09243	316.72748	109.86557	0.00445171	0.28411483	12.27002414
7603901	43748.	81.23707	318.09817	109.86557	0.00445181	0.83067861	12.27002414
7603901	43752.	80.38256	319.46888	109.86557	0.00445168	0.37724020	12.27002414
7603901	43756.	79.52834	320.83958	109.86557	0.00445173	0.92380089	12.27002414
7603901	43760.	78.67385	322.21028	109.86557	0.00445168	0.47036236	12.27002414
7603901	43764.	77.82012	323.58098	109.86557	0.00445172	0.01692179	12.27002414
7603901	43768.	76.96506	324.95168	109.86558	0.00445172	0.56348471	12.27002414
7603901	43772.	76.11084	326.32241	109.86558	0.00445161	0.11004538	12.27002414
7603901	43776.	75.25556	327.69311	109.86558	0.00445173	0.65660922	12.27002411
7603901	43780.	74.40087	329.06381	109.86557	0.00445166	0.20317146	12.27002411
7603901	43784.	73.54668	330.43452	109.86558	0.00445167	0.74973217	12.27002401
7603901	43788.	72.69199	331.80523	109.86559	0.00445172	0.29629430	12.27002401
7603901	43792.	71.83946	333.17594	109.86558	0.00445169	0.84285059	12.27002401
7603901	43796.	70.98395	334.54664	109.86559	0.00445162	0.38941503	12.27002401
7603901	43800.	70.12932	335.91735	109.86558	0.00445157	0.93597700	12.27002401
7603901	43804.	69.27372	337.28805	109.86558	0.00445160	0.48254155	12.27002401
7603901	43808.	68.41992	338.65874	109.86558	0.00445150	0.02910152	12.27002401
7603901	43812.	67.56525	340.02944	109.86560	0.00445150	0.57566378	12.27002401
7603901	43816.	66.70898	341.40014	109.86560	0.00445158	0.12223046	12.27002401
7603901	43820.	65.85835	342.77086	109.86560	0.00445173	0.66878120	12.27002401
7603901	43824.	65.00231	344.14154	109.86560	0.00445176	0.21534737	12.27002401
7603901	43828.	64.15035	345.51225	109.86558	0.00445143	0.76190200	12.27002401
7603901	43832.	63.29445	346.88295	109.86558	0.00445151	0.30846781	12.27002401

Appendix C.

Radiation Pressure, Albedo, and Drag Perturbations.

This appendix gives the radiation and albedo pressure perturbations calculated and applied in the calculation of mean elements to obtain the elements given in Appendix B. These perturbations are the sum of the direct solar radiation pressure and the earth's reflected radiation pressure. They are calculated with the nominal values of the area to mass ratios given in table C1, assuming the satellite is spherical and is a specular reflector. The drag perturbations are calculated with the same nominal values of A/m.

The units of the perturbations are as follows: perigee, node, and inclinations are given in degrees for drag and radians for radiation pressure; the eccentricity is dimensionless; the mean anomaly is in revolutions, and the semimajor axis is in megameters.

Table C1.
Nominal Area to Mass Ratios

	Satellite	cm^2/gram A/m
6508901	GEOS-1	0.10
6800201	GEOS-2	0.06
7603901	LAGEOS	0.00689

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41501.	-0.165774E-04	0.402717E-06	0.632601E-07	-0.200823E-05	0.142826E-06	0.877338E-06
41503.	-0.348277E-04	0.909111E-06	0.987720E-07	-0.383355E-05	-0.307684E-05	0.168615E-05
41505.	-0.550827E-04	0.150965E-05	0.102429E-06	-0.550035E-05	-0.931435E-05	0.244411E-05
41507.	-0.768517E-04	0.217527E-05	0.714487E-07	-0.696371E-05	-0.182824E-04	0.312504E-05
41509.	-0.100974E-03	0.290314E-05	0.329841E-08	-0.827243E-05	-0.295668E-04	0.374282E-05
41511.	-0.126925E-03	0.366207E-05	-0.100153E-06	-0.938725E-05	-0.428691E-04	0.425015E-05
41513.	-0.154512E-03	0.443078E-05	-0.236767E-06	-0.103005E-04	-0.579042E-04	0.465968E-05
41519.	-0.245191E-03	0.660586E-05	-0.794883E-06	-0.118321E-04	-0.109575E-03	0.532028E-05
41521.	-0.277370E-03	0.723042E-05	-0.100423E-05	-0.119564E-04	-0.127928E-03	0.535423E-05
41523.	-0.310233E-03	0.778332E-05	-0.120987E-05	-0.119028E-04	-0.146244E-03	0.532147E-05
41525.	-0.343595E-03	0.825743E-05	-0.140178E-05	-0.116837E-04	-0.164349E-03	0.523345E-05
41527.	-0.377264E-03	0.864937E-05	-0.157012E-05	-0.113118E-04	-0.181907E-03	0.509916E-05
41529.	-0.411045E-03	0.895918E-05	-0.170564E-05	-0.108001E-04	-0.198671E-03	0.492466E-05
41531.	-0.444735E-03	0.918994E-05	-0.180003E-05	-0.101600E-04	-0.214418E-03	0.471182E-05
41533.	-0.478144E-03	0.934730E-05	-0.184617E-05	-0.940297E-05	-0.228947E-03	0.445883E-05
41535.	-0.511103E-03	0.943907E-05	-0.183839E-05	-0.854061E-05	-0.242076E-03	0.415880E-05
41537.	-0.542798E-03	0.947574E-05	-0.177475E-05	-0.760553E-05	-0.253714E-03	0.380115E-05
41539.	-0.574409E-03	0.946608E-05	-0.165077E-05	-0.657011E-05	-0.263579E-03	0.336508E-05
41541.	-0.604983E-03	0.942247E-05	-0.146668E-05	-0.546498E-05	-0.271671E-03	0.289243E-05
41543.	-0.634363E-03	0.935775E-05	-0.122437E-05	-0.429900E-05	-0.277775E-03	0.238863E-05
41545.	-0.662287E-03	0.928324E-05	-0.927297E-06	-0.308298E-05	-0.281866E-03	0.183249E-05
41547.	-0.688562E-03	0.921028E-05	-0.582303E-06	-0.182553E-05	-0.283873E-03	0.123087E-05
41549.	-0.713013E-03	0.914983E-05	-0.199901E-06	-0.529886E-06	-0.283745E-03	0.621832E-06
41551.	-0.735442E-03	0.910969E-05	0.205424E-06	0.800061E-06	-0.281484E-03	0.296634E-07
41553.	-0.756593E-03	0.909085E-05	0.629100E-06	0.221991E-05	-0.276919E-03	-0.538851E-06
41555.	-0.774383E-03	0.908509E-05	0.100107E-05	0.362316E-05	-0.270729E-03	-0.980277E-06
41557.	-0.789429E-03	0.903436E-05	0.124422E-05	0.510922E-05	-0.263553E-03	-0.111040E-05
41559.	-0.800539E-03	0.894871E-05	0.143603E-05	0.659734E-05	-0.256787E-03	-0.110649E-05
41571.	-0.773675E-03	0.844370E-05	0.267079E-05	0.142616E-04	-0.229654E-03	-0.127802E-05
41573.	-0.753735E-03	0.837617E-05	0.286884E-05	0.152979E-04	-0.227392E-03	-0.133566E-05
41575.	-0.729692E-03	0.831635E-05	0.305698E-05	0.162598E-04	-0.225732E-03	-0.138042E-05
41577.	-0.702737E-03	0.831135E-05	0.318662E-05	0.171213E-04	-0.224239E-03	-0.155948E-05
41579.	-0.674943E-03	0.839456E-05	0.313959E-05	0.178504E-04	-0.221866E-03	-0.176897E-05
41583.	-0.615386E-03	0.845724E-05	0.287980E-05	0.190175E-04	-0.214441E-03	-0.217022E-05
41589.	-0.517620E-03	0.811749E-05	0.250614E-05	0.202220E-04	-0.197246E-03	-0.268596E-05

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41591.	-0.483586E-03	0.790926E-05	0.244079E-05	0.205034E-04	-0.190165E-03	-0.282477E-05
41593.	-0.449182E-03	0.767238E-05	0.241569E-05	0.207301E-04	-0.182642E-03	-0.293665E-05
41595.	-0.414690E-03	0.741972E-05	0.243316E-05	0.209036E-04	-0.174704E-03	-0.303921E-05
41597.	-0.398163E-03	0.716257E-05	0.246291E-05	0.209639E-04	-0.163623E-03	-0.311808E-05
41599.	-0.381772E-03	0.691020E-05	0.251256E-05	0.209970E-04	-0.152473E-03	-0.318496E-05
41601.	-0.365650E-03	0.666883E-05	0.257909E-05	0.210017E-04	-0.141198E-03	-0.322781E-05
41603.	-0.349858E-03	0.644438E-05	0.265731E-05	0.209780E-04	-0.129919E-03	-0.323496E-05
41605.	-0.334493E-03	0.624104E-05	0.273930E-05	0.209244E-04	-0.118694E-03	-0.320256E-05
41607.	-0.319618E-03	0.605936E-05	0.281217E-05	0.208370E-04	-0.107582E-03	-0.313422E-05
41609.	-0.305204E-03	0.589087E-05	0.285055E-05	0.207090E-04	-0.966464E-04	-0.304190E-05
41611.	-0.290665E-03	0.570088E-05	0.277708E-05	0.205222E-04	-0.863047E-04	-0.285206E-05
41613.	-0.277902E-03	0.548445E-05	0.268203E-05	0.202945E-04	-0.759252E-04	-0.281568E-05
41615.	-0.267119E-03	0.525815E-05	0.258186E-05	0.200245E-04	-0.652376E-04	-0.279220E-05
41617.	-0.258436E-03	0.502195E-05	0.247759E-05	0.197127E-04	-0.542280E-04	-0.278380E-05
41619.	-0.251959E-03	0.477633E-05	0.237012E-05	0.193602E-04	-0.428363E-04	-0.278810E-05
41621.	-0.247749E-03	0.452081E-05	0.225987E-05	0.189662E-04	-0.311570E-04	-0.280142E-05
41623.	-0.245863E-03	0.425586E-05	0.214779E-05	0.185321E-04	-0.191370E-04	-0.281649E-05
41625.	-0.246317E-03	0.398186E-05	0.203469E-05	0.180589E-04	-0.678103E-05	-0.282607E-05
41627.	-0.249096E-03	0.369949E-05	0.192131E-05	0.175487E-04	0.590140E-05	-0.282356E-05
41629.	-0.254159E-03	0.341016E-05	0.180895E-05	0.170047E-04	0.188982E-04	-0.280435E-05
41631.	-0.261457E-03	0.311616E-05	0.169950E-05	0.164308E-04	0.321709E-04	-0.276805E-05
41633.	-0.270762E-03	0.281494E-05	0.158439E-05	0.158434E-04	0.456774E-04	-0.262532E-05
41635.	-0.281398E-03	0.253096E-05	0.139012E-05	0.152809E-04	0.586947E-04	-0.240903E-05
41637.	-0.293201E-03	0.223708E-05	0.117028E-05	0.147327E-04	0.710100E-04	-0.216722E-05
41639.	-0.306067E-03	0.192770E-05	0.951182E-06	0.141959E-04	0.824844E-04	-0.192088E-05
41641.	-0.319910E-03	0.160474E-05	0.745695E-06	0.136713E-04	0.930478E-04	-0.167517E-05
41643.	-0.334563E-03	0.127394E-05	0.560949E-06	0.131628E-04	0.102700E-03	-0.146358E-05
41645.	-0.349945E-03	0.940476E-06	0.403347E-06	0.126748E-04	0.111461E-03	-0.128183E-05
41647.	-0.365974E-03	0.610414E-06	0.276313E-06	0.122124E-04	0.119371E-03	-0.111979E-05
41649.	-0.382566E-03	0.290266E-06	0.181427E-06	0.117802E-04	0.126478E-03	-0.968071E-06
41651.	-0.399616E-03	-0.133665E-07	0.118961E-06	0.113829E-04	0.132840E-03	-0.820736E-06
41653.	-0.417008E-03	-0.294100E-06	0.881180E-07	0.110260E-04	0.138525E-03	-0.674777E-06
41655.	-0.434624E-03	-0.546055E-06	0.871870E-07	0.107160E-04	0.143610E-03	-0.530643E-06
41657.	-0.452353E-03	-0.764174E-06	0.113664E-06	0.104601E-04	0.148185E-03	-0.392455E-06
41659.	-0.470089E-03	-0.944537E-06	0.164350E-06	0.102662E-04	0.152356E-03	-0.268048E-06

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41661.	-0.487732E-03	-0.108472E-05	0.235410E-06	0.101422E-04	0.156241E-03	-0.169596E-06
41665.	-0.522504E-03	-0.124540E-05	0.420380E-06	0.101290E-04	0.163742E-03	-0.145437E-06
41667.	-0.539352E-03	-0.127097E-05	0.523539E-06	0.102512E-04	0.167628E-03	-0.220482E-06
41669.	-0.555684E-03	-0.126536E-05	0.626262E-06	0.104639E-04	0.171840E-03	-0.336700E-06
41671.	-0.571397E-03	-0.123614E-05	0.724675E-06	0.107785E-04	0.176558E-03	-0.530061E-06
41673.	-0.586350E-03	-0.119238E-05	0.813719E-06	0.111944E-04	0.181964E-03	-0.793411E-06
41675.	-0.600471E-03	-0.114437E-05	0.888504E-06	0.117154E-04	0.188257E-03	-0.109902E-05
41677.	-0.613675E-03	-0.110290E-05	0.945801E-06	0.123410E-04	0.195632E-03	-0.143456E-05
41679.	-0.625880E-03	-0.107918E-05	0.983589E-06	0.130671E-04	0.204283E-03	-0.179232E-05
41681.	-0.637004E-03	-0.108459E-05	0.100114E-05	0.138878E-04	0.214400E-03	-0.216996E-05
41683.	-0.647435E-03	-0.112237E-05	0.999295E-06	0.148337E-04	0.226310E-03	-0.258518E-05
41685.	-0.656248E-03	-0.122097E-05	0.979776E-06	0.158210E-04	0.239982E-03	-0.301094E-05
41687.	-0.663879E-03	-0.138085E-05	0.946184E-06	0.168808E-04	0.255656E-03	-0.346962E-05
41689.	-0.670355E-03	-0.161057E-05	0.903052E-06	0.180044E-04	0.273489E-03	-0.396722E-05
41691.	-0.675774E-03	-0.191706E-05	0.856845E-06	0.191858E-04	0.293629E-03	-0.453589E-05
41693.	-0.680132E-03	-0.230477E-05	0.810983E-06	0.204107E-04	0.316186E-03	-0.512722E-05
41695.	-0.683489E-03	-0.277576E-05	0.770693E-06	0.216694E-04	0.341259E-03	-0.573642E-05
41697.	-0.685913E-03	-0.332982E-05	0.740855E-06	0.229507E-04	0.368924E-03	-0.637363E-05
41699.	-0.687467E-03	-0.396518E-05	0.725787E-06	0.242420E-04	0.399237E-03	-0.706395E-05
41701.	-0.688200E-03	-0.467865E-05	0.728817E-06	0.255395E-04	0.432233E-03	-0.775728E-05
41703.	-0.688287E-03	-0.546442E-05	0.752286E-06	0.268329E-04	0.467892E-03	-0.843363E-05
41705.	-0.687618E-03	-0.631716E-05	0.797851E-06	0.281182E-04	0.506302E-03	-0.908190E-05
41707.	-0.686349E-03	-0.722903E-05	0.866071E-06	0.293833E-04	0.547393E-03	-0.969635E-05
41709.	-0.684524E-03	-0.819219E-05	0.956434E-06	0.306188E-04	0.591115E-03	-0.102751E-04
41711.	-0.682166E-03	-0.919869E-05	0.106691E-05	0.318163E-04	0.637389E-03	-0.108187E-04
41713.	-0.679277E-03	-0.102407E-04	0.119324E-05	0.329688E-04	0.686090E-03	-0.113263E-04
41715.	-0.675855E-03	-0.113114E-04	0.132767E-05	0.340710E-04	0.737037E-03	-0.117919E-04
41717.	-0.671862E-03	-0.124056E-04	0.145547E-05	0.351192E-04	0.789946E-03	-0.121916E-04
41719.	-0.667092E-03	-0.135238E-04	0.153422E-05	0.361216E-04	0.844270E-03	-0.124269E-04
41721.	-0.661404E-03	-0.146821E-04	0.152636E-05	0.370582E-04	0.899139E-03	-0.124633E-04
41723.	-0.655318E-03	-0.158697E-04	0.152057E-05	0.378423E-04	0.953856E-03	-0.125127E-04
41725.	-0.648862E-03	-0.170812E-04	0.151598E-05	0.384651E-04	0.100839E-02	-0.125644E-04
41727.	-0.642083E-03	-0.183105E-04	0.151242E-05	0.389190E-04	0.106318E-02	-0.126109E-04
41729.	-0.634999E-03	-0.195519E-04	0.150907E-05	0.392004E-04	0.111797E-02	-0.126414E-04
41731.	-0.627648E-03	-0.207993E-04	0.150571E-05	0.393077E-04	0.117275E-02	-0.126476E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41737.	-0.604445E-03	-0.245189E-04	0.149899E-05	0.385834E-04	0.133684E-02	-0.125483E-04
41739.	-0.596422E-03	-0.257319E-04	0.149954E-05	0.380027E-04	0.139138E-02	-0.125044E-04
41741.	-0.588315E-03	-0.269222E-04	0.150208E-05	0.372638E-04	0.144603E-02	-0.124674E-04
41743.	-0.580316E-03	-0.280824E-04	0.149629E-05	0.363936E-04	0.150030E-02	-0.123775E-04
41745.	-0.573102E-03	-0.291716E-04	0.139399E-05	0.354685E-04	0.155381E-02	-0.121003E-04
41747.	-0.566318E-03	-0.302311E-04	0.126446E-05	0.344872E-04	0.160582E-02	-0.117226E-04
41749.	-0.559829E-03	-0.312675E-04	0.113388E-05	0.334511E-04	0.165591E-02	-0.112884E-04
41751.	-0.553591E-03	-0.322785E-04	0.101471E-05	0.323652E-04	0.170384E-02	-0.108114E-04
41753.	-0.547593E-03	-0.332598E-04	0.914193E-06	0.312336E-04	0.174943E-02	-0.102948E-04
41755.	-0.541805E-03	-0.342023E-04	0.836827E-06	0.300681E-04	0.179243E-02	-0.974224E-05
41757.	-0.536282E-03	-0.350996E-04	0.785067E-06	0.288781E-04	0.183309E-02	-0.915086E-05
41759.	-0.531058E-03	-0.359438E-04	0.760372E-06	0.276713E-04	0.187120E-02	-0.852693E-05
41761.	-0.526199E-03	-0.367274E-04	0.763067E-06	0.264563E-04	0.190672E-02	-0.787951E-05
41763.	-0.521781E-03	-0.374433E-04	0.792434E-06	0.252400E-04	0.193967E-02	-0.722605E-05
41765.	-0.517832E-03	-0.380858E-04	0.846538E-06	0.240284E-04	0.197004E-02	-0.659435E-05
41767.	-0.514391E-03	-0.386505E-04	0.921627E-06	0.228272E-04	0.199787E-02	-0.601245E-05
41769.	-0.511554E-03	-0.391335E-04	0.101314E-05	0.216500E-04	0.202334E-02	-0.544489E-05
41771.	-0.509386E-03	-0.395328E-04	0.111441E-05	0.205012E-04	0.204631E-02	-0.490400E-05
41773.	-0.507955E-03	-0.398504E-04	0.121827E-05	0.193919E-04	0.206706E-02	-0.441539E-05
41775.	-0.507336E-03	-0.400931E-04	0.131369E-05	0.183288E-04	0.208578E-02	-0.400078E-05
41777.	-0.507619E-03	-0.402758E-04	0.138359E-05	0.173142E-04	0.210280E-02	-0.367016E-05
41779.	-0.508896E-03	-0.404440E-04	0.140154E-05	0.163320E-04	0.211864E-02	-0.356773E-05
41781.	-0.511173E-03	-0.406338E-04	0.135303E-05	0.154228E-04	0.213451E-02	-0.355861E-05
41783.	-0.514550E-03	-0.408055E-04	0.129826E-05	0.146472E-04	0.215045E-02	-0.353666E-05
41785.	-0.519036E-03	-0.409642E-04	0.123757E-05	0.140119E-04	0.216649E-02	-0.350254E-05
41787.	-0.524645E-03	-0.411154E-04	0.117160E-05	0.135215E-04	0.218260E-02	-0.346188E-05
41789.	-0.531361E-03	-0.412637E-04	0.110154E-05	0.131800E-04	0.219888E-02	-0.342157E-05
41791.	-0.539171E-03	-0.414155E-04	0.102850E-05	0.129873E-04	0.221532E-02	-0.339230E-05
41793.	-0.548023E-03	-0.415763E-04	0.953480E-06	0.129422E-04	0.223191E-02	-0.338211E-05
41795.	-0.557875E-03	-0.417528E-04	0.878018E-06	0.130423E-04	0.224868E-02	-0.339518E-05
41797.	-0.568640E-03	-0.419499E-04	0.803369E-06	0.132851E-04	0.226562E-02	-0.342883E-05
41799.	-0.579793E-03	-0.421500E-04	0.687716E-06	0.136473E-04	0.228276E-02	-0.353166E-05
41801.	-0.590905E-03	-0.423737E-04	0.514749E-06	0.141063E-04	0.230044E-02	-0.371806E-05
41803.	-0.602109E-03	-0.426562E-04	0.323716E-06	0.146565E-04	0.231898E-02	-0.395914E-05
41805.	-0.613367E-03	-0.430080E-04	0.130508E-06	0.152887E-04	0.233865E-02	-0.423869E-05

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41807.	-0.624614E-03	-0.434322E-04	-0.543621E-07	0.159943E-04	0.235964E-02	-0.454467E-05
41809.	-0.635772E-03	-0.439279E-04	-0.223235E-06	0.167657E-04	0.238213E-02	-0.487022E-05
41811.	-0.646755E-03	-0.444920E-04	-0.370434E-06	0.175960E-04	0.240625E-02	-0.521332E-05
41813.	-0.657488E-03	-0.451195E-04	-0.491815E-06	0.184796E-04	0.243212E-02	-0.557721E-05
41815.	-0.667903E-03	-0.458050E-04	-0.584489E-06	0.194106E-04	0.245983E-02	-0.596801E-05
41817.	-0.677977E-03	-0.465418E-04	-0.646521E-06	0.203848E-04	0.248948E-02	-0.641809E-05
41819.	-0.687590E-03	-0.473244E-04	-0.677602E-06	0.213954E-04	0.252102E-02	-0.689171E-05
41821.	-0.696609E-03	-0.481468E-04	-0.678536E-06	0.224313E-04	0.255483E-02	-0.738621E-05
41823.	-0.705378E-03	-0.490036E-04	-0.649858E-06	0.235368E-04	0.259080E-02	-0.791249E-05
41825.	-0.712980E-03	-0.498880E-04	-0.595106E-06	0.246096E-04	0.262885E-02	-0.847902E-05
41827.	-0.719716E-03	-0.507947E-04	-0.516930E-06	0.256949E-04	0.266908E-02	-0.906659E-05
41829.	-0.725505E-03	-0.517188E-04	-0.419608E-06	0.267904E-04	0.271151E-02	-0.965073E-05
41831.	-0.730276E-03	-0.526565E-04	-0.307973E-06	0.278918E-04	0.275617E-02	-0.102177E-04
41833.	-0.733941E-03	-0.536050E-04	-0.187294E-06	0.289935E-04	0.280306E-02	-0.107619E-04
41835.	-0.736391E-03	-0.545631E-04	-0.630383E-07	0.300904E-04	0.285215E-02	-0.112825E-04
41837.	-0.737522E-03	-0.555310E-04	0.594164E-07	0.311779E-04	0.290342E-02	-0.117814E-04
41839.	-0.737236E-03	-0.565101E-04	0.175086E-06	0.322517E-04	0.295681E-02	-0.122620E-04
41841.	-0.735462E-03	-0.575036E-04	0.279685E-06	0.333073E-04	0.301225E-02	-0.127300E-04
41843.	-0.732159E-03	-0.585149E-04	0.369745E-06	0.343390E-04	0.306966E-02	-0.131913E-04
41845.	-0.727316E-03	-0.595508E-04	0.443755E-06	0.353438E-04	0.312897E-02	-0.136666E-04
41847.	-0.720964E-03	-0.606133E-04	0.498595E-06	0.363082E-04	0.319035E-02	-0.141265E-04
41849.	-0.713142E-03	-0.617064E-04	0.533700E-06	0.372310E-04	0.325298E-02	-0.145716E-04
41851.	-0.703996E-03	-0.628348E-04	0.550078E-06	0.380997E-04	0.331757E-02	-0.150379E-04
41853.	-0.693606E-03	-0.640048E-04	0.549181E-06	0.389157E-04	0.338378E-02	-0.154928E-04
41855.	-0.682089E-03	-0.652207E-04	0.534094E-06	0.396792E-04	0.345156E-02	-0.159220E-04
41859.	-0.656216E-03	-0.677990E-04	0.478398E-06	0.410563E-04	0.359158E-02	-0.166559E-04
41863.	-0.627501E-03	-0.705700E-04	0.421610E-06	0.422426E-04	0.373711E-02	-0.172069E-04
41865.	-0.612364E-03	-0.720206E-04	0.404478E-06	0.427665E-04	0.381174E-02	-0.174351E-04
41867.	-0.596841E-03	-0.735086E-04	0.399875E-06	0.432474E-04	0.388751E-02	-0.176462E-04
41869.	-0.581011E-03	-0.750284E-04	0.410268E-06	0.436895E-04	0.396433E-02	-0.178662E-04
41871.	-0.565003E-03	-0.765740E-04	0.436794E-06	0.440933E-04	0.404213E-02	-0.180826E-04
41873.	-0.548974E-03	-0.781387E-04	0.479972E-06	0.444575E-04	0.412118E-02	-0.182785E-04
41875.	-0.532983E-03	-0.797151E-04	0.538687E-06	0.447840E-04	0.420070E-02	-0.184512E-04
41877.	-0.517176E-03	-0.812972E-04	0.610819E-06	0.450721E-04	0.428095E-02	-0.186163E-04
41879.	-0.501652E-03	-0.828793E-04	0.691605E-06	0.453206E-04	0.436184E-02	-0.187854E-04

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41881.	-0.486400E-03	-0.844547E-04	0.771386E-06	0.455281E-04	0.444288E-02	-0.189257E-04
41883.	-0.471448E-03	-0.860200E-04	0.833706E-06	0.456918E-04	0.452467E-02	-0.190227E-04
41885.	-0.456474E-03	-0.875774E-04	0.827450E-06	0.458109E-04	0.460659E-02	-0.190435E-04
41887.	-0.442012E-03	-0.891497E-04	0.739624E-06	0.458746E-04	0.468859E-02	-0.190477E-04
41889.	-0.429188E-03	-0.907365E-04	0.645537E-06	0.458751E-04	0.477090E-02	-0.190338E-04
41891.	-0.418139E-03	-0.923366E-04	0.546540E-06	0.458108E-04	0.485354E-02	-0.190092E-04
41893.	-0.408971E-03	-0.939491E-04	0.443932E-06	0.456803E-04	0.493651E-02	-0.189841E-04
41895.	-0.401765E-03	-0.955729E-04	0.338658E-06	0.454836E-04	0.501981E-02	-0.189663E-04
41897.	-0.396588E-03	-0.972070E-04	0.231275E-06	0.452213E-04	0.510344E-02	-0.189589E-04
41899.	-0.393492E-03	-0.988508E-04	0.122492E-06	0.448951E-04	0.518776E-02	-0.189611E-04
41901.	-0.392498E-03	-0.100505E-03	0.134136E-07	0.445053E-04	0.527203E-02	-0.189705E-04
41903.	-0.393614E-03	-0.102169E-03	-0.947301E-07	0.440537E-04	0.535659E-02	-0.189819E-04
41905.	-0.396845E-03	-0.103834E-03	-0.200773E-06	0.435426E-04	0.544179E-02	-0.189898E-04
41907.	-0.402090E-03	-0.105511E-03	-0.303400E-06	0.429735E-04	0.552691E-02	-0.189867E-04
41909.	-0.409272E-03	-0.107188E-03	-0.404604E-06	0.423524E-04	0.561225E-02	-0.189696E-04
41911.	-0.417689E-03	-0.108846E-03	-0.577025E-06	0.417334E-04	0.569712E-02	-0.187782E-04
41913.	-0.427110E-03	-0.110502E-03	-0.783133E-06	0.411143E-04	0.578157E-02	-0.184961E-04
41915.	-0.437498E-03	-0.112166E-03	-0.991336E-06	0.404872E-04	0.586503E-02	-0.181770E-04
41917.	-0.448779E-03	-0.113836E-03	-0.118706E-05	0.398505E-04	0.594741E-02	-0.178572E-04
41919.	-0.460872E-03	-0.115508E-03	-0.136090E-05	0.392047E-04	0.602865E-02	-0.175609E-04
41921.	-0.473631E-03	-0.117179E-03	-0.150817E-05	0.385571E-04	0.610903E-02	-0.172632E-04
41923.	-0.486993E-03	-0.118842E-03	-0.162456E-05	0.379101E-04	0.618789E-02	-0.169698E-04
41925.	-0.500806E-03	-0.120490E-03	-0.170776E-05	0.372703E-04	0.626555E-02	-0.167035E-04
41927.	-0.514972E-03	-0.122115E-03	-0.175595E-05	0.366437E-04	0.634202E-02	-0.164703E-04
41929.	-0.529439E-03	-0.123712E-03	-0.176864E-05	0.360362E-04	0.641732E-02	-0.162504E-04
41931.	-0.544125E-03	-0.125274E-03	-0.174664E-05	0.354532E-04	0.649148E-02	-0.160351E-04
41933.	-0.558937E-03	-0.126793E-03	-0.169171E-05	0.348998E-04	0.656455E-02	-0.158196E-04
41935.	-0.573771E-03	-0.128264E-03	-0.160648E-05	0.343823E-04	0.663657E-02	-0.156028E-04
41937.	-0.588524E-03	-0.129682E-03	-0.149447E-05	0.339078E-04	0.670760E-02	-0.153871E-04
41939.	-0.603101E-03	-0.131042E-03	-0.136007E-05	0.334843E-04	0.677773E-02	-0.151783E-04
41941.	-0.617418E-03	-0.132344E-03	-0.120864E-05	0.331204E-04	0.684706E-02	-0.149859E-04
41943.	-0.631418E-03	-0.133587E-03	-0.104673E-05	0.328248E-04	0.691543E-02	-0.148226E-04
41945.	-0.644994E-03	-0.134776E-03	-0.881726E-06	0.326058E-04	0.698355E-02	-0.147044E-04
41947.	-0.658095E-03	-0.135919E-03	-0.722867E-06	0.324711E-04	0.705130E-02	-0.146481E-04
41949.	-0.670622E-03	-0.137033E-03	-0.581025E-06	0.324301E-04	0.711884E-02	-0.146514E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41951.	-0.682506E-03	-0.138144E-03	-0.466322E-06	0.324958E-04	0.718634E-02	-0.146965E-04
41953.	-0.693758E-03	-0.139305E-03	-0.392207E-06	0.326857E-04	0.725385E-02	-0.147480E-04
41955.	-0.703654E-03	-0.140474E-03	-0.325997E-06	0.330020E-04	0.732118E-02	-0.147949E-04
41957.	-0.712032E-03	-0.141640E-03	-0.262064E-06	0.334440E-04	0.738831E-02	-0.148379E-04
41959.	-0.718868E-03	-0.142810E-03	-0.201691E-06	0.340108E-04	0.745526E-02	-0.148691E-04
41961.	-0.724138E-03	-0.143986E-03	-0.145934E-06	0.346997E-04	0.752204E-02	-0.148850E-04
41963.	-0.727824E-03	-0.145174E-03	-0.954985E-07	0.355066E-04	0.758866E-02	-0.148869E-04
41965.	-0.729918E-03	-0.146377E-03	-0.506628E-07	0.364267E-04	0.765512E-02	-0.148796E-04
41967.	-0.730506E-03	-0.147568E-03	-0.525431E-07	0.374089E-04	0.772165E-02	-0.149977E-04
41969.	-0.729699E-03	-0.148768E-03	-0.116897E-06	0.384191E-04	0.778909E-02	-0.152847E-04
41971.	-0.727594E-03	-0.150023E-03	-0.211350E-06	0.394689E-04	0.785796E-02	-0.156761E-04
41973.	-0.724280E-03	-0.151351E-03	-0.321327E-06	0.405509E-04	0.792890E-02	-0.161324E-04
41991.	-0.652764E-03	-0.166532E-03	-0.787304E-06	0.505241E-04	0.866047E-02	-0.209000E-04
41993.	-0.641247E-03	-0.168463E-03	-0.733751E-06	0.515156E-04	0.875270E-02	-0.213255E-04
41995.	-0.629122E-03	-0.170413E-03	-0.663104E-06	0.524534E-04	0.884689E-02	-0.217321E-04
41997.	-0.616367E-03	-0.172376E-03	-0.579703E-06	0.533316E-04	0.894289E-02	-0.221330E-04
41999.	-0.603010E-03	-0.174348E-03	-0.489359E-06	0.541393E-04	0.904053E-02	-0.225070E-04
42001.	-0.589095E-03	-0.176322E-03	-0.398126E-06	0.548641E-04	0.914006E-02	-0.228362E-04
42003.	-0.574589E-03	-0.178298E-03	-0.311840E-06	0.554972E-04	0.924040E-02	-0.231217E-04
42005.	-0.559559E-03	-0.180274E-03	-0.234771E-06	0.560269E-04	0.934130E-02	-0.233918E-04
42007.	-0.544028E-03	-0.182251E-03	-0.173437E-06	0.564424E-04	0.944340E-02	-0.236093E-04
42009.	-0.523303E-03	-0.184208E-03	-0.121283E-06	0.568083E-04	0.954528E-02	-0.237916E-04
42011.	-0.490541E-03	-0.186110E-03	-0.786777E-07	0.571372E-04	0.964587E-02	-0.239368E-04
42013.	-0.457412E-03	-0.188012E-03	-0.770053E-07	0.572002E-04	0.974669E-02	-0.239516E-04
42015.	-0.424258E-03	-0.189910E-03	-0.116108E-06	0.569998E-04	0.984735E-02	-0.238377E-04
42017.	-0.391347E-03	-0.191804E-03	-0.194010E-06	0.565456E-04	0.994745E-02	-0.236042E-04
42019.	-0.358853E-03	-0.193697E-03	-0.305466E-06	0.558539E-04	0.100466E-01	-0.232632E-04
42021.	-0.326863E-03	-0.195591E-03	-0.441231E-06	0.549448E-04	0.101442E-01	-0.228375E-04
42023.	-0.295406E-03	-0.197490E-03	-0.589257E-06	0.538396E-04	0.102401E-01	-0.223522E-04
42025.	-0.264613E-03	-0.199390E-03	-0.739025E-06	0.525604E-04	0.103341E-01	-0.217804E-04
42027.	-0.234460E-03	-0.201287E-03	-0.878377E-06	0.511263E-04	0.104251E-01	-0.211345E-04
42029.	-0.205038E-03	-0.203170E-03	-0.996247E-06	0.495606E-04	0.105131E-01	-0.204511E-04
42031.	-0.176394E-03	-0.205028E-03	-0.108306E-05	0.478815E-04	0.105981E-01	-0.197382E-04
42033.	-0.148567E-03	-0.206848E-03	-0.113143E-05	0.461052E-04	0.106797E-01	-0.189861E-04
42035.	-0.121613E-03	-0.208617E-03	-0.113610E-05	0.442490E-04	0.107578E-01	-0.181925E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42037.	-0.961014E-04	-0.210316E-03	-0.109526E-05	0.423711E-04	0.108319E-01	-0.173752E-04
42039.	-0.710861E-04	-0.211932E-03	-0.100609E-05	0.404105E-04	0.109026E-01	-0.164994E-04
42041.	-0.472024E-04	-0.213447E-03	-0.870176E-06	0.384239E-04	0.109696E-01	-0.155908E-04
42043.	-0.245823E-04	-0.214849E-03	-0.691470E-06	0.364276E-04	0.110328E-01	-0.146637E-04
42045.	-0.336302E-05	-0.216123E-03	-0.477581E-06	0.344354E-04	0.110923E-01	-0.137429E-04
42051.	0.509502E-04	-0.219111E-03	0.191052E-06	0.285886E-04	0.112505E-01	-0.114332E-04
42053.	0.662224E-04	-0.219850E-03	0.227002E-06	0.266522E-04	0.112982E-01	-0.109839E-04
42055.	0.791917E-04	-0.220562E-03	0.132959E-06	0.248363E-04	0.113449E-01	-0.109760E-04
42057.	0.889823E-04	-0.221239E-03	0.277912E-07	0.232354E-04	0.113921E-01	-0.109779E-04
42059.	0.954816E-04	-0.221889E-03	-0.883531E-07	0.218671E-04	0.114397E-01	-0.109824E-04
42061.	0.986106E-04	-0.222521E-03	-0.215184E-06	0.207455E-04	0.114878E-01	-0.109835E-04
42063.	0.983215E-04	-0.223143E-03	-0.352500E-06	0.198815E-04	0.115365E-01	-0.109759E-04
42072.	0.555197E-04	-0.226101E-03	-0.106514E-05	0.193239E-04	0.117616E-01	-0.108571E-04
42074.	0.371724E-04	-0.226850E-03	-0.122970E-05	0.199338E-04	0.118136E-01	-0.108527E-04
42076.	0.156147E-04	-0.227643E-03	-0.140795E-05	0.208108E-04	0.118659E-01	-0.108651E-04
42078.	-0.640352E-05	-0.228460E-03	-0.173607E-05	0.218197E-04	0.119187E-01	-0.111447E-04
42080.	-0.287949E-04	-0.229380E-03	-0.212520E-05	0.229553E-04	0.119732E-01	-0.115823E-04
42082.	-0.524962E-04	-0.230427E-03	-0.253070E-05	0.242540E-04	0.120300E-01	-0.121268E-04
42084.	-0.768593E-04	-0.231614E-03	-0.291547E-05	0.256792E-04	0.120895E-01	-0.127372E-04
42086.	-0.101749E-03	-0.232941E-03	-0.326065E-05	0.272166E-04	0.121518E-01	-0.133930E-04
42088.	-0.126951E-03	-0.234400E-03	-0.355341E-05	0.288526E-04	0.122172E-01	-0.140788E-04
42090.	-0.152256E-03	-0.235981E-03	-0.378459E-05	0.305737E-04	0.122858E-01	-0.147836E-04
42092.	-0.177448E-03	-0.237672E-03	-0.394784E-05	0.323670E-04	0.123577E-01	-0.155043E-04
42094.	-0.202277E-03	-0.239459E-03	-0.403916E-05	0.342228E-04	0.124331E-01	-0.162434E-04
42096.	-0.226602E-03	-0.241327E-03	-0.405676E-05	0.361261E-04	0.125119E-01	-0.170055E-04
42098.	-0.250168E-03	-0.243263E-03	-0.400099E-05	0.380706E-04	0.125942E-01	-0.178117E-04
42100.	-0.272289E-03	-0.245250E-03	-0.387793E-05	0.400033E-04	0.126796E-01	-0.186424E-04
42102.	-0.293712E-03	-0.247276E-03	-0.368700E-05	0.419913E-04	0.127695E-01	-0.195069E-04
42104.	-0.313661E-03	-0.249326E-03	-0.343690E-05	0.439895E-04	0.128625E-01	-0.203808E-04
42106.	-0.332801E-03	-0.251390E-03	-0.312407E-05	0.460709E-04	0.129594E-01	-0.213182E-04
42108.	-0.349130E-03	-0.253462E-03	-0.278389E-05	0.480593E-04	0.130597E-01	-0.222460E-04
42110.	-0.363254E-03	-0.255536E-03	-0.241963E-05	0.500384E-04	0.131634E-01	-0.231523E-04
42112.	-0.374913E-03	-0.257611E-03	-0.204898E-05	0.520061E-04	0.132705E-01	-0.240030E-04
42114.	-0.383800E-03	-0.259699E-03	-0.169308E-05	0.539622E-04	0.133805E-01	-0.247562E-04
42118.	-0.391421E-03	-0.264109E-03	-0.114613E-05	0.578919E-04	0.136069E-01	-0.255991E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42120.	-0.388998E-03	-0.266473E-03	-0.951441E-06	0.598206E-04	0.137208E-01	-0.256012E-04
42122.	-0.382247E-03	-0.268848E-03	-0.752280E-06	0.616257E-04	0.138340E-01	-0.256041E-04
42126.	-0.355835E-03	-0.273618E-03	-0.350153E-06	0.648448E-04	0.140593E-01	-0.256417E-04
42128.	-0.336330E-03	-0.276007E-03	-0.152178E-06	0.662521E-04	0.141708E-01	-0.256837E-04
42130.	-0.313322E-03	-0.278394E-03	0.364423E-07	0.674950E-04	0.142813E-01	-0.257405E-04
42132.	-0.286295E-03	-0.280770E-03	0.221831E-06	0.686136E-04	0.143918E-01	-0.259250E-04
42134.	-0.257808E-03	-0.283044E-03	0.246565E-06	0.695325E-04	0.145031E-01	-0.261828E-04
42136.	-0.227903E-03	-0.285320E-03	0.168818E-06	0.702742E-04	0.146151E-01	-0.264661E-04
42138.	-0.196566E-03	-0.287649E-03	0.382853E-07	0.708644E-04	0.147281E-01	-0.267089E-04
42140.	-0.163981E-03	-0.290043E-03	-0.115200E-06	0.713184E-04	0.148418E-01	-0.268853E-04
42142.	-0.130360E-03	-0.292501E-03	-0.270282E-06	0.716462E-04	0.149561E-01	-0.269893E-04
42144.	-0.959080E-04	-0.295014E-03	-0.411637E-06	0.718543E-04	0.150708E-01	-0.270277E-04
42146.	-0.608169E-04	-0.297568E-03	-0.528481E-06	0.719477E-04	0.151857E-01	-0.270141E-04
42148.	-0.428921E-04	-0.300145E-03	-0.572851E-06	0.719413E-04	0.153034E-01	-0.269730E-04
42150.	-0.248149E-04	-0.302727E-03	-0.599067E-06	0.718832E-04	0.154209E-01	-0.269345E-04
42152.	-0.677579E-05	-0.305307E-03	-0.606856E-06	0.717727E-04	0.155387E-01	-0.268676E-04
42154.	0.111584E-04	-0.307873E-03	-0.596765E-06	0.716087E-04	0.156556E-01	-0.267730E-04
42156.	0.288411E-04	-0.310421E-03	-0.570522E-06	0.713906E-04	0.157721E-01	-0.266555E-04
42158.	0.460997E-04	-0.312941E-03	-0.530349E-06	0.711188E-04	0.158881E-01	-0.265518E-04
42160.	0.628820E-04	-0.315429E-03	-0.480691E-06	0.707878E-04	0.160034E-01	-0.264235E-04
42162.	0.791081E-04	-0.317878E-03	-0.426776E-06	0.703931E-04	0.161173E-01	-0.262617E-04
42164.	0.946364E-04	-0.320285E-03	-0.374487E-06	0.699339E-04	0.162309E-01	-0.260512E-04
42166.	0.109364E-03	-0.322649E-03	-0.330176E-06	0.694078E-04	0.163435E-01	-0.257861E-04
42168.	0.123141E-03	-0.324972E-03	-0.299904E-06	0.688127E-04	0.164549E-01	-0.254689E-04
42170.	0.135809E-03	-0.327255E-03	-0.288535E-06	0.681458E-04	0.165652E-01	-0.251105E-04
42172.	0.147219E-03	-0.329505E-03	-0.298980E-06	0.674060E-04	0.166743E-01	-0.247259E-04
42174.	0.157237E-03	-0.331726E-03	-0.331858E-06	0.665948E-04	0.167820E-01	-0.243297E-04
42176.	0.165776E-03	-0.333923E-03	-0.385627E-06	0.657167E-04	0.168884E-01	-0.239446E-04
42178.	0.172716E-03	-0.336097E-03	-0.459251E-06	0.647829E-04	0.169938E-01	-0.235441E-04
42180.	0.178033E-03	-0.338248E-03	-0.551015E-06	0.638020E-04	0.170972E-01	-0.231225E-04
42182.	0.181755E-03	-0.340377E-03	-0.658240E-06	0.627866E-04	0.171988E-01	-0.226922E-04
42184.	0.183953E-03	-0.342491E-03	-0.778353E-06	0.617421E-04	0.172986E-01	-0.222414E-04
42186.	0.184723E-03	-0.344592E-03	-0.906924E-06	0.606737E-04	0.173964E-01	-0.217680E-04
42188.	0.184182E-03	-0.346684E-03	-0.103863E-05	0.595857E-04	0.174920E-01	-0.212695E-04
42190.	0.182457E-03	-0.348768E-03	-0.116767E-05	0.584820E-04	0.175855E-01	-0.207449E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42192.	0.179674E-03	-0.350841E-03	-0.128820E-05	0.573671E-04	0.176767E-01	-0.201936E-04
42194.	0.175949E-03	-0.352902E-03	-0.139464E-05	0.562443E-04	0.177653E-01	-0.196196E-04
42196.	0.171380E-03	-0.354947E-03	-0.148198E-05	0.551232E-04	0.178520E-01	-0.190242E-04
42198.	0.166043E-03	-0.356970E-03	-0.154581E-05	0.540064E-04	0.179363E-01	-0.184237E-04
42200.	0.160025E-03	-0.358966E-03	-0.158252E-05	0.528965E-04	0.180184E-01	-0.178421E-04
42202.	0.153424E-03	-0.360930E-03	-0.158955E-05	0.517946E-04	0.180982E-01	-0.173146E-04
42204.	0.146360E-03	-0.362855E-03	-0.156558E-05	0.507127E-04	0.181761E-01	-0.167968E-04
42206.	0.138908E-03	-0.364733E-03	-0.151007E-05	0.496532E-04	0.182515E-01	-0.162948E-04
42208.	0.131168E-03	-0.366560E-03	-0.142325E-05	0.486240E-04	0.183247E-01	-0.158123E-04
42210.	0.123271E-03	-0.368330E-03	-0.130620E-05	0.476343E-04	0.183958E-01	-0.153857E-04
42212.	0.115237E-03	-0.370037E-03	-0.116206E-05	0.466873E-04	0.184649E-01	-0.149839E-04
42214.	0.107133E-03	-0.371676E-03	-0.995021E-06	0.457886E-04	0.185321E-01	-0.146040E-04
42216.	0.990298E-04	-0.373242E-03	-0.811086E-06	0.449432E-04	0.185974E-01	-0.142458E-04
42218.	0.910016E-04	-0.374735E-03	-0.619056E-06	0.441564E-04	0.186611E-01	-0.139172E-04
42220.	0.831115E-04	-0.376156E-03	-0.433101E-06	0.434331E-04	0.187234E-01	-0.136366E-04
42222.	0.753610E-04	-0.377517E-03	-0.284924E-06	0.427730E-04	0.187846E-01	-0.134542E-04
42224.	0.678588E-04	-0.378848E-03	-0.213610E-06	0.421832E-04	0.188451E-01	-0.134097E-04
42226.	0.612717E-04	-0.380148E-03	-0.140428E-06	0.417250E-04	0.189056E-01	-0.133671E-04
42231.	0.491967E-04	-0.383289E-03	0.459623E-07	0.411799E-04	0.190561E-01	-0.133221E-04
42233.	0.462737E-04	-0.384513E-03	0.116731E-06	0.412079E-04	0.191159E-01	-0.133328E-04
42235.	0.444933E-04	-0.385731E-03	0.181884E-06	0.413781E-04	0.191755E-01	-0.133527E-04
42237.	0.438774E-04	-0.386949E-03	0.240974E-06	0.416898E-04	0.192349E-01	-0.133743E-04
42241.	0.461064E-04	-0.389400E-03	0.342426E-06	0.427197E-04	0.193558E-01	-0.133972E-04
42243.	0.489256E-04	-0.390649E-03	0.384867E-06	0.434304E-04	0.194148E-01	-0.133972E-04
42245.	0.528542E-04	-0.391915E-03	0.421689E-06	0.442607E-04	0.194737E-01	-0.133908E-04
42247.	0.577229E-04	-0.393200E-03	0.429006E-06	0.451825E-04	0.195326E-01	-0.134443E-04
42249.	0.630491E-04	-0.394516E-03	0.343997E-06	0.461158E-04	0.195923E-01	-0.137153E-04
42251.	0.689825E-04	-0.395893E-03	0.230455E-06	0.470793E-04	0.196536E-01	-0.140994E-04
42253.	0.755189E-04	-0.397341E-03	0.112091E-06	0.480710E-04	0.197169E-01	-0.145474E-04
42255.	0.826564E-04	-0.398860E-03	0.991264E-09	0.490879E-04	0.197816E-01	-0.150236E-04
42257.	0.903227E-04	-0.400449E-03	-0.956774E-07	0.501202E-04	0.198488E-01	-0.155247E-04
42259.	0.984513E-04	-0.402102E-03	-0.172879E-06	0.511589E-04	0.199181E-01	-0.160779E-04
42261.	0.107051E-03	-0.403815E-03	-0.226654E-06	0.521993E-04	0.199895E-01	-0.166442E-04
42263.	0.116098E-03	-0.405582E-03	-0.255471E-06	0.532353E-04	0.200632E-01	-0.172043E-04
42265.	0.125544E-03	-0.407396E-03	-0.259032E-06	0.542606E-04	0.201392E-01	-0.177400E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42267.	0.135340E-03	-0.409249E-03	-0.238082E-06	0.552671E-04	0.202172E-01	-0.182423E-04
42269.	0.145459E-03	-0.411134E-03	-0.194244E-06	0.562455E-04	0.202975E-01	-0.187084E-04
42271.	0.155892E-03	-0.413045E-03	-0.130014E-06	0.571866E-04	0.203798E-01	-0.191387E-04
42273.	0.166649E-03	-0.414973E-03	-0.488629E-07	0.580815E-04	0.204640E-01	-0.195356E-04
42275.	0.177751E-03	-0.416914E-03	0.445940E-07	0.589221E-04	0.205501E-01	-0.199031E-04
42277.	0.189234E-03	-0.418864E-03	0.144233E-06	0.597001E-04	0.206378E-01	-0.202373E-04
42279.	0.201152E-03	-0.420822E-03	0.242168E-06	0.604078E-04	0.207270E-01	-0.205392E-04
42281.	0.213522E-03	-0.422792E-03	0.329346E-06	0.610338E-04	0.208177E-01	-0.207934E-04
42283.	0.226453E-03	-0.424783E-03	0.396682E-06	0.615658E-04	0.209089E-01	-0.209750E-04
42285.	0.240016E-03	-0.426814E-03	0.438116E-06	0.619906E-04	0.210006E-01	-0.211018E-04
42287.	0.254595E-03	-0.428937E-03	0.446366E-06	0.622957E-04	0.210919E-01	-0.211498E-04
42289.	0.269252E-03	-0.431084E-03	0.452941E-06	0.624495E-04	0.211836E-01	-0.211963E-04
42291.	0.283856E-03	-0.433234E-03	0.460962E-06	0.624476E-04	0.212754E-01	-0.212264E-04
42293.	0.298371E-03	-0.435382E-03	0.469989E-06	0.622902E-04	0.213671E-01	-0.212301E-04
42295.	0.312735E-03	-0.437522E-03	0.479666E-06	0.619789E-04	0.214588E-01	-0.212032E-04
42297.	0.326371E-03	-0.439622E-03	0.475928E-06	0.615298E-04	0.215507E-01	-0.211602E-04
42299.	0.338976E-03	-0.441645E-03	0.414233E-06	0.609692E-04	0.216424E-01	-0.209537E-04
42301.	0.350797E-03	-0.443641E-03	0.321702E-06	0.603065E-04	0.217333E-01	-0.206601E-04
42303.	0.362009E-03	-0.445625E-03	0.213808E-06	0.595511E-04	0.218231E-01	-0.203273E-04
42305.	0.372617E-03	-0.447601E-03	0.995140E-07	0.587151E-04	0.219117E-01	-0.199380E-04
42307.	0.382681E-03	-0.449567E-03	-0.123960E-07	0.578060E-04	0.219983E-01	-0.194992E-04
42309.	0.392186E-03	-0.451516E-03	-0.115159E-06	0.568363E-04	0.220829E-01	-0.190439E-04
42311.	0.401130E-03	-0.453443E-03	-0.202643E-06	0.558129E-04	0.221654E-01	-0.185765E-04
42313.	0.409495E-03	-0.455341E-03	-0.270891E-06	0.547416E-04	0.222457E-01	-0.180898E-04
42315.	0.417259E-03	-0.457202E-03	-0.317582E-06	0.536287E-04	0.223237E-01	-0.175793E-04
42317.	0.424395E-03	-0.459016E-03	-0.341641E-06	0.524818E-04	0.223993E-01	-0.170390E-04
42319.	0.430874E-03	-0.460776E-03	-0.343096E-06	0.513074E-04	0.224721E-01	-0.164676E-04
42321.	0.436618E-03	-0.462473E-03	-0.322943E-06	0.501175E-04	0.225427E-01	-0.158619E-04
42323.	0.441558E-03	-0.464100E-03	-0.283048E-06	0.489190E-04	0.226109E-01	-0.152296E-04
42325.	0.445598E-03	-0.465651E-03	-0.226188E-06	0.477196E-04	0.226765E-01	-0.145826E-04
42327.	0.448650E-03	-0.467121E-03	-0.156133E-06	0.465253E-04	0.227397E-01	-0.139419E-04
42329.	0.450657E-03	-0.468507E-03	-0.780101E-07	0.453406E-04	0.228004E-01	-0.133472E-04
42331.	0.451530E-03	-0.469811E-03	0.194580E-08	0.441751E-04	0.228588E-01	-0.127892E-04
42335.	0.449508E-03	-0.472178E-03	0.142439E-06	0.419474E-04	0.229693E-01	-0.117582E-04
42339.	0.441998E-03	-0.474275E-03	0.220798E-06	0.399253E-04	0.230716E-01	-0.109420E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42343.	0.428595E-03	-0.476187E-03	0.204867E-06	0.381879E-04	0.231677E-01	-0.102710E-04
42347.	0.409581E-03	-0.477992E-03	0.937152E-07	0.368109E-04	0.232587E-01	-0.967051E-05
42351.	0.385774E-03	-0.479759E-03	-0.101231E-06	0.358373E-04	0.233457E-01	-0.913412E-05
42355.	0.358075E-03	-0.481573E-03	-0.352209E-06	0.352568E-04	0.234303E-01	-0.877263E-05
42359.	0.327394E-03	-0.483511E-03	-0.615538E-06	0.350248E-04	0.235136E-01	-0.862583E-05
42363.	0.294775E-03	-0.485612E-03	-0.843915E-06	0.350899E-04	0.235963E-01	-0.869676E-05
42367.	0.261018E-03	-0.487886E-03	-0.992387E-06	0.354017E-04	0.236800E-01	-0.890719E-05
42371.	0.226873E-03	-0.490311E-03	-0.102872E-05	0.359024E-04	0.237652E-01	-0.914525E-05
42375.	0.193270E-03	-0.492842E-03	-0.932694E-06	0.365359E-04	0.238525E-01	-0.937193E-05
42379.	0.161153E-03	-0.495426E-03	-0.697907E-06	0.372585E-04	0.239421E-01	-0.960106E-05
42383.	0.131293E-03	-0.498008E-03	-0.337529E-06	0.380330E-04	0.240342E-01	-0.989285E-05
42387.	0.104548E-03	-0.500541E-03	0.102753E-06	0.388209E-04	0.241291E-01	-0.102446E-04
42391.	0.811375E-04	-0.503004E-03	0.491929E-06	0.396270E-04	0.242260E-01	-0.105251E-04
42395.	0.645583E-04	-0.505430E-03	0.726298E-06	0.403677E-04	0.243224E-01	-0.105850E-04
42399.	0.570336E-04	-0.507809E-03	0.972854E-06	0.409537E-04	0.244175E-01	-0.105862E-04
42403.	0.589643E-04	-0.510122E-03	0.121325E-05	0.413602E-04	0.245111E-01	-0.105492E-04
42407.	0.703339E-04	-0.512376E-03	0.143973E-05	0.415762E-04	0.246033E-01	-0.105220E-04
42411.	0.906433E-04	-0.514565E-03	0.165394E-05	0.415960E-04	0.246934E-01	-0.105387E-04
42417.	0.134090E-03	-0.517726E-03	0.183270E-05	0.412633E-04	0.248268E-01	-0.106600E-04
42421.	0.165694E-03	-0.519854E-03	0.167706E-05	0.408709E-04	0.249148E-01	-0.104703E-04
42425.	0.198738E-03	-0.522001E-03	0.152608E-05	0.403587E-04	0.250007E-01	-0.101094E-04
42429.	0.232632E-03	-0.524115E-03	0.143712E-05	0.397189E-04	0.250837E-01	-0.968906E-05
42433.	0.266547E-03	-0.526141E-03	0.142389E-05	0.389456E-04	0.251635E-01	-0.926707E-05
42437.	0.299383E-03	-0.528029E-03	0.147501E-05	0.380231E-04	0.252393E-01	-0.878017E-05
42441.	0.329951E-03	-0.529740E-03	0.156236E-05	0.369351E-04	0.253106E-01	-0.830799E-05
42445.	0.357334E-03	-0.531261E-03	0.163664E-05	0.356401E-04	0.253768E-01	-0.774264E-05
42449.	0.380385E-03	-0.532615E-03	0.164296E-05	0.341180E-04	0.254379E-01	-0.703417E-05
42453.	0.397673E-03	-0.533863E-03	0.154831E-05	0.323597E-04	0.254937E-01	-0.625070E-05
42457.	0.407874E-03	-0.535049E-03	0.136227E-05	0.303943E-04	0.255446E-01	-0.549500E-05
42461.	0.410383E-03	-0.536174E-03	0.110041E-05	0.283127E-04	0.255902E-01	-0.471161E-05
42465.	0.405677E-03	-0.537251E-03	0.777463E-06	0.261997E-04	0.256294E-01	-0.386844E-05
42469.	0.394723E-03	-0.538321E-03	0.436043E-06	0.240924E-04	0.256611E-01	-0.296006E-05
42473.	0.378617E-03	-0.539386E-03	0.129008E-06	0.220146E-04	0.256849E-01	-0.198511E-05
42477.	0.358346E-03	-0.540418E-03	-0.981791E-07	0.200002E-04	0.257009E-01	-0.961413E-06
42481.	0.334667E-03	-0.541367E-03	-0.213935E-06	0.180926E-04	0.257094E-01	0.143222E-07

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42485.	0.308320E-03	-0.542182E-03	-0.203268E-06	0.163244E-04	0.257108E-01	0.814463E-06
42489.	0.280154E-03	-0.542810E-03	-0.693606E-07	0.147542E-04	0.257059E-01	0.149195E-05
42493.	0.251029E-03	-0.543258E-03	0.169068E-06	0.134418E-04	0.256904E-01	0.197000E-05
42497.	0.221320E-03	-0.543410E-03	0.474021E-06	0.124439E-04	0.256754E-01	0.234000E-05
42501.	0.191787E-03	-0.543316E-03	0.795174E-06	0.118167E-04	0.256573E-01	0.261000E-05
42505.	0.163185E-03	-0.543028E-03	0.107906E-05	0.116298E-04	0.256378E-01	0.274000E-05
42509.	0.136364E-03	-0.542632E-03	0.128965E-05	0.119451E-04	0.256181E-01	0.267000E-05
42513.	0.111810E-03	-0.542211E-03	0.142264E-05	0.128032E-04	0.255998E-01	0.236000E-05
42517.	0.915588E-04	-0.541832E-03	0.146974E-05	0.141184E-04	0.255844E-01	0.178000E-05
42521.	0.754377E-04	-0.541577E-03	0.142194E-05	0.158334E-04	0.255738E-01	0.100000E-05
42525.	0.631645E-04	-0.541551E-03	0.130142E-05	0.178520E-04	0.255698E-01	0.110000E-06
42529.	0.543173E-04	-0.541827E-03	0.115907E-05	0.200870E-04	0.255739E-01	-0.840000E-06
42533.	0.484100E-04	-0.542424E-03	0.104656E-05	0.224685E-04	0.255872E-01	-0.187000E-05
42537.	0.448021E-04	-0.543335E-03	0.100359E-05	0.249359E-04	0.256103E-01	-0.302000E-05
42541.	0.430643E-04	-0.544527E-03	0.105116E-05	0.274082E-04	0.256433E-01	-0.418000E-05
42545.	0.427702E-04	-0.545953E-03	0.119605E-05	0.298066E-04	0.256863E-01	-0.541000E-05
42549.	0.436439E-04	-0.547560E-03	0.142333E-05	0.320833E-04	0.257389E-01	-0.653000E-05
42553.	0.454405E-04	-0.549292E-03	0.168525E-05	0.341863E-04	0.257999E-01	-0.741000E-05
42557.	0.485924E-04	-0.551114E-03	0.179357E-05	0.361051E-04	0.258666E-01	-0.769000E-05
42561.	0.553247E-04	-0.553138E-03	0.180540E-05	0.381014E-04	0.259339E-01	-0.771000E-05
42565.	0.666311E-04	-0.555425E-03	0.183923E-05	0.397672E-04	0.260014E-01	-0.777000E-05
42569.	0.790934E-04	-0.557753E-03	0.188843E-05	0.401066E-04	0.260685E-01	-0.783000E-05
42573.	0.926738E-04	-0.560060E-03	0.194587E-05	0.391171E-04	0.261355E-01	-0.785000E-05
42577.	0.106802E-03	-0.562260E-03	0.201223E-05	0.368396E-04	0.262022E-01	-0.780000E-05
42581.	0.120825E-03	-0.564263E-03	0.208549E-05	0.333887E-04	0.262683E-01	-0.763000E-05
42585.	0.132302E-03	-0.566084E-03	0.171519E-05	0.293931E-04	0.263296E-01	-0.636000E-05
42589.	0.141841E-03	-0.567691E-03	0.126938E-05	0.250283E-04	0.263768E-01	-0.455000E-05
42593.	0.149231E-03	-0.568984E-03	0.934821E-06	0.203620E-04	0.264069E-01	-0.256000E-05
42597.	0.153666E-03	-0.569860E-03	0.758911E-06	0.154948E-04	0.264186E-01	-0.450000E-06
42601.	0.154209E-03	-0.570229E-03	0.738063E-06	0.105953E-04	0.264114E-01	0.174000E-05
42605.	0.149685E-03	-0.570014E-03	0.837974E-06	0.569090E-05	0.263856E-01	0.401000E-05
42609.	0.138703E-03	-0.569185E-03	0.100275E-05	0.953495E-06	0.263417E-01	0.619000E-05
42613.	0.120067E-03	-0.567763E-03	0.115744E-05	-0.349252E-05	0.262809E-01	0.814000E-05
42593.	0.149540E-03	-0.569019E-03	0.934952E-06	0.203847E-04	0.264092E-01	-0.257000E-05
42597.	0.153976E-03	-0.569897E-03	0.759040E-06	0.155176E-04	0.264209E-01	-0.460000E-06

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42601.	0.154518E-03	-0.570267E-03	0.738189E-06	0.106181E-04	0.264139E-01	0.173000E-05
42605.	0.149995E-03	-0.570054E-03	0.838098E-06	0.571368E-05	0.263881E-01	0.400000E-05
42609.	0.139014E-03	-0.569227E-03	0.100287E-05	0.976280E-06	0.263443E-01	0.617000E-05
42613.	0.120378E-03	-0.567806E-03	0.115757E-05	-0.346974E-05	0.262837E-01	0.813000E-05
42621.	0.565918E-04	-0.563584E-03	0.115526E-05	-0.108976E-04	0.261198E-01	0.111800E-04
42625.	0.110443E-04	-0.561094E-03	0.920906E-06	-0.136161E-04	0.260215E-01	0.122900E-04
42633.	-0.101530E-03	-0.556160E-03	0.610090E-07	-0.166935E-04	0.258052E-01	0.138100E-04
42637.	-0.166023E-03	-0.553976E-03	-0.445916E-06	-0.171012E-04	0.256922E-01	0.140700E-04
42641.	-0.233543E-03	-0.552098E-03	-0.893382E-06	-0.168368E-04	0.255791E-01	0.140100E-04
42645.	-0.302291E-03	-0.550536E-03	-0.120206E-05	-0.159890E-04	0.254682E-01	0.135900E-04
42649.	-0.370785E-03	-0.549252E-03	-0.131076E-05	-0.146370E-04	0.253612E-01	0.129700E-04
42653.	-0.437388E-03	-0.548175E-03	-0.118384E-05	-0.128670E-04	0.252596E-01	0.122400E-04
42657.	-0.500293E-03	-0.547208E-03	-0.812056E-06	-0.107528E-04	0.251646E-01	0.114100E-04
42661.	-0.557716E-03	-0.546253E-03	-0.216457E-06	-0.834758E-05	0.250774E-01	0.104500E-04
42665.	-0.607492E-03	-0.545230E-03	0.533652E-06	-0.571582E-05	0.249987E-01	0.932000E-05
42669.	-0.649631E-03	-0.544105E-03	0.136091E-05	-0.276332E-05	0.249291E-01	0.809000E-05
42677.	-0.693433E-03	-0.542157E-03	0.241766E-05	0.388178E-05	0.248049E-01	0.714000E-05
42681.	-0.689243E-03	-0.541337E-03	0.282682E-05	0.728401E-05	0.247405E-01	0.712000E-05
42685.	-0.666875E-03	-0.540537E-03	0.322320E-05	0.105929E-04	0.246737E-01	0.713000E-05
42689.	-0.628853E-03	-0.539637E-03	0.351183E-05	0.136916E-04	0.246056E-01	0.675000E-05
42693.	-0.582397E-03	-0.538577E-03	0.342818E-05	0.163163E-04	0.245426E-01	0.580000E-05
42697.	-0.527969E-03	-0.537797E-03	0.319788E-05	0.186358E-04	0.244873E-01	0.469000E-05
42701.	-0.499421E-03	-0.537437E-03	0.308709E-05	0.196378E-04	0.244425E-01	0.411000E-05
42705.	-0.469038E-03	-0.537240E-03	0.302823E-05	0.205331E-04	0.244018E-01	0.368000E-05
42709.	-0.437847E-03	-0.537162E-03	0.304663E-05	0.213221E-04	0.243648E-01	0.337000E-05
42713.	-0.406694E-03	-0.537076E-03	0.314860E-05	0.220039E-04	0.243269E-01	0.310420E-05
42717.	-0.376254E-03	-0.537078E-03	0.331040E-05	0.225681E-04	0.242961E-01	0.283670E-05
42721.	-0.347230E-03	-0.537062E-03	0.346255E-05	0.229980E-04	0.242673E-01	0.265614E-05
42725.	-0.319691E-03	-0.537081E-03	0.335428E-05	0.232591E-04	0.242385E-01	0.269342E-05
42729.	-0.298258E-03	-0.537192E-03	0.315827E-05	0.232707E-04	0.242105E-01	0.264552E-05
42733.	-0.285006E-03	-0.537363E-03	0.294180E-05	0.230159E-04	0.241840E-01	0.267013E-05
42737.	-0.280582E-03	-0.537579E-03	0.271364E-05	0.224894E-04	0.241589E-01	0.271961E-05
42741.	-0.285123E-03	-0.537832E-03	0.248508E-05	0.217004E-04	0.241352E-01	0.273874E-05
42745.	-0.298435E-03	-0.538115E-03	0.227241E-05	0.206747E-04	0.241127E-01	0.271669E-05
42749.	-0.318949E-03	-0.538415E-03	0.198187E-05	0.195195E-04	0.240902E-01	0.297290E-05

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42753.	-0.343747E-03	-0.538744E-03	0.155860E-05	0.183578E-04	0.240648E-01	0.347460E-05
42757.	-0.372068E-03	-0.539099E-03	0.118821E-05	0.171926E-04	0.240352E-01	0.408329E-05
42761.	-0.403230E-03	-0.539427E-03	0.923891E-06	0.160674E-04	0.240016E-01	0.468563E-05
42765.	-0.436592E-03	-0.539671E-03	0.785989E-06	0.150256E-04	0.239640E-01	0.515296E-05
42769.	-0.471302E-03	-0.539786E-03	0.772049E-06	0.141317E-04	0.239228E-01	0.552283E-05
42782.	-0.584308E-03	-0.538956E-03	0.127187E-05	0.130225E-04	0.237734E-01	0.579805E-05
42786.	-0.616359E-03	-0.538383E-03	0.144306E-05	0.134502E-04	0.237272E-01	0.566184E-05
42790.	-0.645765E-03	-0.537767E-03	0.155894E-05	0.143195E-04	0.236833E-01	0.528985E-05
42794.	-0.671671E-03	-0.537203E-03	0.160110E-05	0.156272E-04	0.236436E-01	0.466670E-05
42798.	-0.693816E-03	-0.536774E-03	0.156753E-05	0.173658E-04	0.236097E-01	0.374926E-05
42802.	-0.711124E-03	-0.536594E-03	0.147537E-05	0.194011E-04	0.235830E-01	0.269942E-05
42806.	-0.724197E-03	-0.536715E-03	0.135728E-05	0.216925E-04	0.235649E-01	0.160942E-05
42810.	-0.733270E-03	-0.537166E-03	0.125648E-05	0.241531E-04	0.235563E-01	0.508349E-06
42814.	-0.738663E-03	-0.537939E-03	0.121343E-05	0.267098E-04	0.235581E-01	-0.635017E-06
42818.	-0.740872E-03	-0.539005E-03	0.125592E-05	0.293007E-04	0.235703E-01	-0.189061E-05
42822.	-0.740172E-03	-0.540312E-03	0.139516E-05	0.318352E-04	0.235934E-01	-0.313568E-05
42826.	-0.736819E-03	-0.541802E-03	0.162443E-05	0.342371E-04	0.236267E-01	-0.441684E-05
42830.	-0.730768E-03	-0.543411E-03	0.190521E-05	0.364592E-04	0.236694E-01	-0.550923E-05
42834.	-0.721540E-03	-0.545108E-03	0.212526E-05	0.384649E-04	0.237193E-01	-0.614414E-05
42838.	-0.708100E-03	-0.546974E-03	0.212669E-05	0.401267E-04	0.237715E-01	-0.616571E-05
42842.	-0.691980E-03	-0.548908E-03	0.214321E-05	0.411693E-04	0.238237E-01	-0.615641E-05
42846.	-0.673519E-03	-0.550874E-03	0.217016E-05	0.415526E-04	0.238760E-01	-0.618977E-05
42850.	-0.652965E-03	-0.552833E-03	0.220608E-05	0.412721E-04	0.239274E-01	-0.624843E-05
42854.	-0.630665E-03	-0.554742E-03	0.224566E-05	0.403506E-04	0.239787E-01	-0.627000E-05
42858.	-0.609009E-03	-0.556472E-03	0.215427E-05	0.389627E-04	0.240292E-01	-0.593856E-05
42862.	-0.589089E-03	-0.558058E-03	0.192369E-05	0.373040E-04	0.240752E-01	-0.511016E-05
42866.	-0.569879E-03	-0.559570E-03	0.172377E-05	0.354190E-04	0.241140E-01	-0.417829E-05
42870.	-0.551460E-03	-0.560970E-03	0.160586E-05	0.333769E-04	0.241446E-01	-0.317104E-05
42874.	-0.534157E-03	-0.562203E-03	0.159047E-05	0.312475E-04	0.241661E-01	-0.217643E-05
42878.	-0.518441E-03	-0.563216E-03	0.167774E-05	0.290876E-04	0.241783E-01	-0.120274E-05
42882.	-0.504732E-03	-0.563958E-03	0.184638E-05	0.269453E-04	0.241813E-01	-0.206038E-06
42886.	-0.493558E-03	-0.564400E-03	0.205083E-05	0.248784E-04	0.241759E-01	0.784265E-06
42890.	-0.485485E-03	-0.564575E-03	0.218959E-05	0.229177E-04	0.241633E-01	0.155899E-05
42894.	-0.481010E-03	-0.564697E-03	0.209543E-05	0.211001E-04	0.241484E-01	0.162605E-05
42898.	-0.481875E-03	-0.564765E-03	0.196575E-05	0.197528E-04	0.241342E-01	0.163983E-05

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42902.	-0.488347E-03	-0.564817E-03	0.181678E-05	0.189195E-04	0.241205E-01	0.161277E-05
42906.	-0.500399E-03	-0.564896E-03	0.165015E-05	0.186174E-04	0.241077E-01	0.159914E-05
42910.	-0.517668E-03	-0.565043E-03	0.147246E-05	0.188423E-04	0.240956E-01	0.162380E-05
42914.	-0.539425E-03	-0.565270E-03	0.123282E-05	0.195658E-04	0.240844E-01	0.162734E-05
42918.	-0.562000E-03	-0.565647E-03	0.835883E-06	0.206058E-04	0.240757E-01	0.124571E-05
42922.	-0.585311E-03	-0.566288E-03	0.448986E-06	0.219236E-04	0.240715E-01	0.625440E-06
42926.	-0.608667E-03	-0.567188E-03	0.144452E-06	0.234706E-04	0.240732E-01	-0.183902E-06
42930.	-0.631481E-03	-0.568314E-03	-0.459961E-07	0.252078E-04	0.240817E-01	-0.104555E-05
42934.	-0.653013E-03	-0.569618E-03	-0.114050E-06	0.270883E-04	0.240976E-01	-0.190550E-05
42938.	-0.672388E-03	-0.571048E-03	-0.658002E-07	0.290744E-04	0.241214E-01	-0.277061E-05
42942.	-0.689201E-03	-0.572559E-03	0.828999E-07	0.311852E-04	0.241535E-01	-0.371662E-05
42946.	-0.701925E-03	-0.574122E-03	0.296510E-06	0.333099E-04	0.241941E-01	-0.476499E-05
42950.	-0.710008E-03	-0.575721E-03	0.538119E-06	0.354552E-04	0.242433E-01	-0.586065E-05
42954.	-0.712639E-03	-0.577365E-03	0.766701E-06	0.375882E-04	0.243009E-01	-0.701158E-05
42958.	-0.709259E-03	-0.579082E-03	0.942401E-06	0.396830E-04	0.243667E-01	-0.804963E-05
42962.	-0.699753E-03	-0.580905E-03	0.104286E-05	0.416826E-04	0.244401E-01	-0.894581E-05
42966.	-0.684403E-03	-0.582874E-03	0.106477E-05	0.435354E-04	0.245210E-01	-0.976093E-05
42970.	-0.663965E-03	-0.585029E-03	0.102826E-05	0.452229E-04	0.246088E-01	-0.105843E-04
42974.	-0.639481E-03	-0.587396E-03	0.964903E-06	0.467316E-04	0.247036E-01	-0.113642E-04
42978.	-0.612050E-03	-0.589968E-03	0.912155E-06	0.480617E-04	0.248038E-01	-0.121470E-04
42982.	-0.582522E-03	-0.592720E-03	0.902568E-06	0.492161E-04	0.249098E-01	-0.128439E-04
42986.	-0.551829E-03	-0.595602E-03	0.953889E-06	0.502082E-04	0.250207E-01	-0.133622E-04
42990.	-0.520917E-03	-0.598555E-03	0.107004E-05	0.510312E-04	0.251356E-01	-0.137030E-04
42994.	-0.490435E-03	-0.601522E-03	0.123197E-05	0.516669E-04	0.252539E-01	-0.139317E-04
42998.	-0.460710E-03	-0.604463E-03	0.136442E-05	0.520969E-04	0.253744E-01	-0.140740E-04
43002.	-0.431724E-03	-0.607442E-03	0.124765E-05	0.522696E-04	0.254959E-01	-0.141128E-04
43006.	-0.408415E-03	-0.610547E-03	0.106726E-05	0.521007E-04	0.256193E-01	-0.141792E-04
43010.	-0.392086E-03	-0.613647E-03	0.869627E-06	0.515819E-04	0.257425E-01	-0.141966E-04
43014.	-0.383312E-03	-0.616777E-03	0.661328E-06	0.507107E-04	0.258668E-01	-0.141348E-04
43018.	-0.382344E-03	-0.619918E-03	0.455435E-06	0.494944E-04	0.259921E-01	-0.140427E-04
43022.	-0.388973E-03	-0.623049E-03	0.265529E-06	0.479544E-04	0.261187E-01	-0.139858E-04
43026.	-0.401408E-03	-0.626071E-03	-0.835025E-07	0.463158E-04	0.262437E-01	-0.135176E-04
43034.	-0.437735E-03	-0.632060E-03	-0.778293E-06	0.428598E-04	0.264769E-01	-0.120567E-04
43038.	-0.459965E-03	-0.634987E-03	-0.974466E-06	0.410715E-04	0.265831E-01	-0.112027E-04
43042.	-0.483917E-03	-0.637795E-03	-0.103492E-05	0.393097E-04	0.266829E-01	-0.103052E-04

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43046.	-0.509072E-03	-0.640426E-03	-0.954998E-06	0.376199E-04	0.267760E-01	-0.951194E-05
43050.	-0.534718E-03	-0.642828E-03	-0.748029E-06	0.360634E-04	0.268630E-01	-0.882109E-05
43054.	-0.560163E-03	-0.644968E-03	-0.443450E-06	0.347084E-04	0.269438E-01	-0.828400E-05
43058.	-0.584928E-03	-0.646840E-03	-0.968753E-07	0.336234E-04	0.270197E-01	-0.791033E-05
43062.	-0.608729E-03	-0.648509E-03	0.196161E-06	0.328738E-04	0.270922E-01	-0.769659E-05
43066.	-0.630773E-03	-0.650192E-03	0.318228E-06	0.325557E-04	0.271635E-01	-0.764726E-05
43070.	-0.648038E-03	-0.651826E-03	0.422771E-06	0.327990E-04	0.272335E-01	-0.759740E-05
43074.	-0.660066E-03	-0.653443E-03	0.516913E-06	0.336166E-04	0.273036E-01	-0.761000E-05
43082.	-0.667900E-03	-0.656807E-03	0.646744E-06	0.369051E-04	0.274416E-01	-0.791968E-05
43086.	-0.664549E-03	-0.658634E-03	0.463145E-06	0.389801E-04	0.275134E-01	-0.859218E-05
43090.	-0.657124E-03	-0.660756E-03	0.207201E-06	0.411862E-04	0.275922E-01	-0.946879E-05
43094.	-0.646036E-03	-0.663197E-03	-0.162635E-07	0.434784E-04	0.276794E-01	-0.104353E-04
43098.	-0.631720E-03	-0.665919E-03	-0.157706E-06	0.458091E-04	0.277757E-01	-0.115244E-04
43102.	-0.614511E-03	-0.668870E-03	-0.200378E-06	0.480997E-04	0.278813E-01	-0.126100E-04
43106.	-0.594739E-03	-0.671986E-03	-0.146089E-06	0.502697E-04	0.279959E-01	-0.137582E-04
43110.	-0.572353E-03	-0.675207E-03	-0.154884E-07	0.522584E-04	0.281190E-01	-0.147988E-04
43114.	-0.524173E-03	-0.678436E-03	0.312235E-06	0.556235E-04	0.282493E-01	-0.162984E-04
43122.	-0.408006E-03	-0.684989E-03	0.876104E-06	0.604704E-04	0.285415E-01	-0.182294E-04
43126.	-0.343137E-03	-0.688317E-03	0.967729E-06	0.615047E-04	0.286969E-01	-0.186514E-04
43130.	-0.276271E-03	-0.691675E-03	0.904864E-06	0.615174E-04	0.288533E-01	-0.187274E-04
43134.	-0.210020E-03	-0.695081E-03	0.712287E-06	0.605857E-04	0.290076E-01	-0.184354E-04
43138.	-0.144142E-03	-0.698538E-03	0.450161E-06	0.588274E-04	0.291572E-01	-0.176930E-04
43147.	-0.379258E-05	-0.706273E-03	0.656644E-07	0.526752E-04	0.294608E-01	-0.147164E-04
43151.	0.535169E-04	-0.709460E-03	0.136962E-06	0.492847E-04	0.295769E-01	-0.131851E-04
43155.	0.106322E-03	-0.712319E-03	0.388273E-06	0.456809E-04	0.296793E-01	-0.115857E-04
43159.	0.153403E-03	-0.714732E-03	0.786983E-06	0.419876E-04	0.297681E-01	-0.100663E-04
43163.	0.193278E-03	-0.716620E-03	0.121986E-05	0.383219E-04	0.298436E-01	-0.868558E-05
43167.	0.226538E-03	-0.718034E-03	0.132877E-05	0.345893E-04	0.299095E-01	-0.778669E-05
43171.	0.248399E-03	-0.719309E-03	0.106937E-05	0.312419E-04	0.299736E-01	-0.767633E-05
43175.	0.255023E-03	-0.720493E-03	0.769987E-06	0.286643E-04	0.300400E-01	-0.759440E-05
43179.	0.245919E-03	-0.721656E-03	0.439178E-06	0.269451E-04	0.301092E-01	-0.758106E-05
43183.	0.221151E-03	-0.722876E-03	0.885671E-07	0.261296E-04	0.301804E-01	-0.760765E-05
43187.	0.181417E-03	-0.724219E-03	-0.265365E-06	0.262141E-04	0.302537E-01	-0.762016E-05
43191.	0.131597E-03	-0.725628E-03	-0.863620E-06	0.270834E-04	0.303293E-01	-0.768869E-05
43195.	0.775238E-04	-0.727322E-03	-0.167177E-05	0.285193E-04	0.304085E-01	-0.814257E-05

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43199.	0.188812E-04	-0.729484E-03	-0.239879E-05	0.304484E-04	0.304951E-01	-0.890521E-05
43207.	-0.103363E-03	-0.735082E-03	-0.315181E-05	0.353547E-04	0.306949E-01	-0.110384E-04
43211.	-0.163232E-03	-0.738329E-03	-0.308988E-05	0.381638E-04	0.308091E-01	-0.123063E-04
43215.	-0.219812E-03	-0.741720E-03	-0.273863E-05	0.411122E-04	0.309336E-01	-0.135758E-04
43219.	-0.271100E-03	-0.745142E-03	-0.214114E-05	0.441388E-04	0.310686E-01	-0.148316E-04
43223.	-0.315982E-03	-0.748509E-03	-0.136151E-05	0.472771E-04	0.312142E-01	-0.161036E-04
43227.	-0.350551E-03	-0.751798E-03	-0.582798E-06	0.503666E-04	0.313641E-01	-0.172397E-04
43231.	-0.373460E-03	-0.755341E-03	-0.642803E-07	0.536372E-04	0.315253E-01	-0.176312E-04
43235.	-0.379284E-03	-0.759015E-03	0.374943E-06	0.567269E-04	0.316842E-01	-0.177548E-04
43239.	-0.366904E-03	-0.762689E-03	0.819561E-06	0.594893E-04	0.318405E-01	-0.178301E-04
43247.	-0.289921E-03	-0.769975E-03	0.163372E-05	0.638982E-04	0.321456E-01	-0.177927E-04
43251.	-0.261644E-03	-0.773536E-03	0.166336E-05	0.646436E-04	0.323007E-01	-0.179306E-04
43255.	-0.231259E-03	-0.777153E-03	0.151237E-05	0.651295E-04	0.324568E-01	-0.181490E-04
43259.	-0.198925E-03	-0.780890E-03	0.135614E-05	0.654069E-04	0.326136E-01	-0.183565E-04
43263.	-0.165284E-03	-0.784705E-03	0.125141E-05	0.654899E-04	0.327713E-01	-0.184482E-04
43267.	-0.131151E-03	-0.788537E-03	0.121526E-05	0.653868E-04	0.329286E-01	-0.183426E-04
43271.	-0.974755E-04	-0.792320E-03	0.124412E-05	0.650819E-04	0.330848E-01	-0.180511E-04
43275.	-0.650137E-04	-0.795997E-03	0.131892E-05	0.645476E-04	0.332390E-01	-0.176753E-04
43279.	-0.345931E-04	-0.799531E-03	0.140504E-05	0.637592E-04	0.333906E-01	-0.172421E-04
43283.	-0.726902E-05	-0.802910E-03	0.146240E-05	0.626897E-04	0.335379E-01	-0.167272E-04
43287.	0.159049E-04	-0.806149E-03	0.145557E-05	0.613210E-04	0.336803E-01	-0.161514E-04
43291.	0.340730E-04	-0.809277E-03	0.136594E-05	0.596562E-04	0.338167E-01	-0.154230E-04
43295.	0.466289E-04	-0.812314E-03	0.119877E-05	0.577528E-04	0.339470E-01	-0.144725E-04
43299.	0.535064E-04	-0.815279E-03	0.976661E-06	0.556713E-04	0.340698E-01	-0.133535E-04
43303.	0.553160E-04	-0.818190E-03	0.740919E-06	0.534534E-04	0.341844E-01	-0.122389E-04
43307.	0.527699E-04	-0.821045E-03	0.532133E-06	0.511512E-04	0.342894E-01	-0.111033E-04
43311.	0.466342E-04	-0.823822E-03	0.390934E-06	0.488185E-04	0.343848E-01	-0.100410E-04
43315.	0.375249E-04	-0.826485E-03	0.346660E-06	0.464902E-04	0.344705E-01	-0.898656E-05
43319.	0.261427E-04	-0.828980E-03	0.415749E-06	0.442087E-04	0.345464E-01	-0.790674E-05
43323.	0.131443E-04	-0.831254E-03	0.602475E-06	0.420344E-04	0.346133E-01	-0.680550E-05
43327.	-0.102126E-05	-0.833260E-03	0.895537E-06	0.400240E-04	0.346716E-01	-0.576660E-05
43331.	-0.159345E-04	-0.834967E-03	0.125611E-05	0.382218E-04	0.347220E-01	-0.494987E-05
43335.	-0.311379E-04	-0.836385E-03	0.159457E-05	0.366846E-04	0.347665E-01	-0.443754E-05
43347.	-0.680769E-04	-0.839912E-03	0.196154E-05	0.348083E-04	0.348904E-01	-0.444747E-05
43355.	-0.773305E-04	-0.842081E-03	0.211199E-05	0.365803E-04	0.349705E-01	-0.444440E-05

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43359.	-0.769828E-04	-0.843243E-03	0.216007E-05	0.383467E-04	0.350102E-01	-0.462870E-05
43363.	-0.741203E-04	-0.844524E-03	0.198717E-05	0.403233E-04	0.350529E-01	-0.534514E-05
43367.	-0.689455E-04	-0.846086E-03	0.174441E-05	0.424572E-04	0.351029E-01	-0.632388E-05
43371.	-0.616947E-04	-0.847959E-03	0.154384E-05	0.447083E-04	0.351618E-01	-0.734831E-05
43375.	-0.525548E-04	-0.850113E-03	0.143074E-05	0.470176E-04	0.352304E-01	-0.838968E-05
43379.	-0.417345E-04	-0.852498E-03	0.142523E-05	0.493330E-04	0.353088E-01	-0.949910E-05
43383.	-0.294071E-04	-0.855061E-03	0.152723E-05	0.515841E-04	0.353970E-01	-0.106085E-04
43387.	-0.156508E-04	-0.857747E-03	0.172014E-05	0.536950E-04	0.354944E-01	-0.116990E-04
43391.	-0.247016E-06	-0.860512E-03	0.196384E-05	0.556009E-04	0.356002E-01	-0.126928E-04
43395.	0.174078E-04	-0.863353E-03	0.217975E-05	0.572498E-04	0.357125E-01	-0.133431E-04
43399.	0.388011E-04	-0.866429E-03	0.223232E-05	0.585631E-04	0.358274E-01	-0.133884E-04
43403.	0.616752E-04	-0.869597E-03	0.226437E-05	0.592885E-04	0.359425E-01	-0.133472E-04
43407.	0.853583E-04	-0.872774E-03	0.230713E-05	0.593720E-04	0.360579E-01	-0.133416E-04
43411.	0.109535E-03	-0.875922E-03	0.235865E-05	0.588119E-04	0.361729E-01	-0.133809E-04
43415.	0.133083E-03	-0.878973E-03	0.237697E-05	0.576608E-04	0.362874E-01	-0.133868E-04
43419.	0.153582E-03	-0.881853E-03	0.218268E-05	0.561353E-04	0.363999E-01	-0.128211E-04
43423.	0.172060E-03	-0.884681E-03	0.195502E-05	0.543191E-04	0.365063E-01	-0.118871E-04
43427.	0.188647E-03	-0.887420E-03	0.177229E-05	0.522665E-04	0.366047E-01	-0.107727E-04
43431.	0.203228E-03	-0.890008E-03	0.166986E-05	0.500275E-04	0.366942E-01	-0.965049E-05
43435.	0.215266E-03	-0.892381E-03	0.165475E-05	0.476662E-04	0.367736E-01	-0.847984E-05
43439.	0.224127E-03	-0.894483E-03	0.171696E-05	0.452528E-04	0.368429E-01	-0.737444E-05
43443.	0.229087E-03	-0.896273E-03	0.182817E-05	0.428308E-04	0.369021E-01	-0.626066E-05
43447.	0.229483E-03	-0.897737E-03	0.194626E-05	0.404569E-04	0.369513E-01	-0.510831E-05
43451.	0.224607E-03	-0.898893E-03	0.202552E-05	0.382089E-04	0.369916E-01	-0.395038E-05
43455.	0.213822E-03	-0.899804E-03	0.203180E-05	0.361567E-04	0.370238E-01	-0.291622E-05
43459.	0.197020E-03	-0.900554E-03	0.195193E-05	0.343700E-04	0.370493E-01	-0.208992E-05
43463.	0.174809E-03	-0.901144E-03	0.179371E-05	0.329146E-04	0.370708E-01	-0.146766E-05
43467.	0.147738E-03	-0.901812E-03	0.157457E-05	0.318083E-04	0.370855E-01	-0.100576E-05
43471.	0.116814E-03	-0.902551E-03	0.132941E-05	0.310299E-04	0.370968E-01	-0.635550E-06
43475.	0.830900E-04	-0.903403E-03	0.110402E-05	0.305435E-04	0.371056E-01	-0.320299E-06
43479.	0.475100E-04	-0.904381E-03	0.945264E-06	0.303149E-04	0.371130E-01	-0.784654E-07
43483.	0.108759E-04	-0.905469E-03	0.892149E-06	0.303001E-04	0.371198E-01	-0.235178E-07
43487.	-0.257335E-04	-0.906634E-03	0.967938E-06	0.304560E-04	0.371270E-01	-0.771054E-07
43491.	-0.612170E-04	-0.907830E-03	0.118136E-05	0.307413E-04	0.371347E-01	-0.277307E-06
43495.	-0.946906E-04	-0.909001E-03	0.152160E-05	0.311280E-04	0.371433E-01	-0.529114E-06

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43499.	-0.125301E-03	-0.910095E-03	0.195391E-05	0.315851E-04	0.371530E-01	-0.746741E-06
43503.	-0.152186E-03	-0.911076E-03	0.238507E-05	0.320979E-04	0.371638E-01	-0.894126E-06
43511.	-0.186499E-03	-0.912832E-03	0.288483E-05	0.332132E-04	0.371839E-01	-0.854105E-06
43515.	-0.189419E-03	-0.913621E-03	0.314499E-05	0.337017E-04	0.371919E-01	-0.892688E-06
43519.	-0.182495E-03	-0.914363E-03	0.338979E-05	0.341226E-04	0.371981E-01	-0.918528E-06
43523.	-0.166124E-03	-0.915058E-03	0.361286E-05	0.344654E-04	0.372027E-01	-0.885834E-06
43527.	-0.153902E-03	-0.915716E-03	0.369847E-05	0.345739E-04	0.372078E-01	-0.819459E-06
43531.	-0.124320E-03	-0.916342E-03	0.367004E-05	0.347157E-04	0.372106E-01	-0.852375E-06
43535.	-0.931363E-04	-0.917032E-03	0.349918E-05	0.347505E-04	0.372136E-01	-0.859063E-06
43539.	-0.603683E-04	-0.917778E-03	0.335975E-05	0.346876E-04	0.372160E-01	-0.886745E-06
43543.	-0.267491E-04	-0.918535E-03	0.329550E-05	0.345141E-04	0.372177E-01	-0.876002E-06
43547.	0.694568E-05	-0.919248E-03	0.331182E-05	0.342188E-04	0.372182E-01	-0.725436E-06
43551.	0.396851E-04	-0.919863E-03	0.339267E-05	0.337812E-04	0.372169E-01	-0.401066E-06
43555.	0.705079E-04	-0.920337E-03	0.350404E-05	0.331587E-04	0.372132E-01	0.364842E-07
43563.	0.123034E-03	-0.920832E-03	0.358299E-05	0.311602E-04	0.371945E-01	0.886475E-06
43567.	0.142861E-03	-0.921197E-03	0.345013E-05	0.296487E-04	0.371821E-01	0.102171E-05
43571.	0.155168E-03	-0.921642E-03	0.328175E-05	0.278382E-04	0.371700E-01	0.102762E-05
43575.	0.158956E-03	-0.922004E-03	0.307803E-05	0.258046E-04	0.371582E-01	0.132650E-05
43579.	0.154452E-03	-0.922166E-03	0.275365E-05	0.237963E-04	0.371433E-01	0.212490E-05
43583.	0.143544E-03	-0.922292E-03	0.238193E-05	0.217637E-04	0.371222E-01	0.305820E-05
43587.	0.127474E-03	-0.922411E-03	0.203579E-05	0.197292E-04	0.370939E-01	0.400684E-05
43591.	0.107256E-03	-0.922497E-03	0.176715E-05	0.177312E-04	0.370578E-01	0.485572E-05
43595.	0.835507E-04	-0.922506E-03	0.160832E-05	0.158057E-04	0.370142E-01	0.565815E-05
43599.	0.570878E-04	-0.922383E-03	0.157025E-05	0.139955E-04	0.369635E-01	0.645787E-05
43603.	0.285696E-04	-0.922073E-03	0.164842E-05	0.123582E-04	0.369063E-01	0.725109E-05
43607.	-0.140898E-05	-0.921534E-03	0.182505E-05	0.109624E-04	0.368433E-01	0.797184E-05
43611.	-0.324566E-04	-0.920750E-03	0.206756E-05	0.986138E-05	0.367755E-01	0.845729E-05
43615.	-0.638381E-04	-0.919727E-03	0.233216E-05	0.912576E-05	0.367041E-01	0.874411E-05
43619.	-0.948452E-04	-0.918513E-03	0.257454E-05	0.881842E-05	0.366309E-01	0.876522E-05
43623.	-0.124884E-03	-0.917134E-03	0.275265E-05	0.898914E-05	0.365608E-01	0.862700E-05
43627.	-0.153066E-03	-0.915772E-03	0.284606E-05	0.965091E-05	0.364885E-01	0.837192E-05
43631.	-0.178532E-03	-0.914462E-03	0.285070E-05	0.107798E-04	0.364192E-01	0.797275E-05
43635.	-0.201412E-03	-0.913291E-03	0.277819E-05	0.123520E-04	0.363547E-01	0.733194E-05
43639.	-0.220775E-03	-0.912367E-03	0.266225E-05	0.142175E-04	0.362966E-01	0.647385E-05
43643.	-0.237166E-03	-0.911733E-03	0.254006E-05	0.163204E-04	0.362462E-01	0.543383E-05

GEOS-A EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43647.	-0.250903E-03	-0.911411E-03	0.245454E-05	0.185877E-04	0.362044E-01	0.429244E-05
43651.	-0.262441E-03	-0.911389E-03	0.243733E-05	0.209475E-04	0.361719E-01	0.318097E-05
43655.	-0.272098E-03	-0.911632E-03	0.250928E-05	0.233198E-04	0.361488E-01	0.213472E-05
43659.	-0.280042E-03	-0.912091E-03	0.267750E-05	0.256352E-04	0.361352E-01	0.113686E-05
43663.	-0.288716E-03	-0.912826E-03	0.305277E-05	0.289038E-04	0.361322E-01	-0.258590E-06
43667.	-0.297196E-03	-0.913867E-03	0.359169E-05	0.329846E-04	0.361440E-01	-0.183108E-05
43671.	-0.301939E-03	-0.915058E-03	0.379670E-05	0.367234E-04	0.361648E-01	-0.234141E-05
43675.	-0.301917E-03	-0.916409E-03	0.386794E-05	0.394871E-04	0.361884E-01	-0.245137E-05
43679.	-0.297183E-03	-0.917866E-03	0.395923E-05	0.410190E-04	0.362091E-01	-0.248962E-05
43683.	-0.287991E-03	-0.919332E-03	0.406167E-05	0.412580E-04	0.362293E-01	-0.248033E-05
43687.	-0.274637E-03	-0.920739E-03	0.417218E-05	0.401995E-04	0.362487E-01	-0.246773E-05

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41501.	1.653479E-05	-7.046592E-08	-2.924576E-08	-1.940592E-07	-2.539034E-06	-3.538016E-08
41503.	3.204294E-05	-1.452048E-07	-4.553315E-08	-4.172377E-07	-5.143096E-06	6.097685E-08
41505.	4.703791E-05	-2.305512E-07	-6.335115E-08	-6.760892E-07	-7.910206E-06	1.333251E-07
41507.	6.125603E-05	-3.153111E-07	-8.261495E-08	-9.648975E-07	-1.083414E-05	1.189883E-07
41509.	7.485181E-05	-4.083732E-07	-8.990106E-08	-1.281578E-06	-1.396143E-05	2.457951E-07
41511.	8.773681E-05	-5.095258E-07	-1.008314E-07	-1.630572E-06	-1.729319E-05	3.091022E-07
41513.	9.964777E-05	-6.075222E-07	-1.100008E-07	-2.006104E-06	-2.081655E-05	3.201600E-07
41515.	1.107121E-04	-7.148138E-07	-1.079534E-07	-2.403469E-06	-2.456358E-05	4.650783E-07
41517.	1.209039E-04	-8.264579E-07	-1.112513E-07	-2.826010E-06	-2.853637E-05	5.152413E-07
41519.	1.300001E-04	-9.330698E-07	-1.104640E-07	-3.268150E-06	-3.271194E-05	5.482118E-07
41521.	1.380710E-04	-1.048950E-06	-9.998526E-08	-3.725138E-06	-3.709292E-05	6.935780E-07
41523.	1.451270E-04	-1.164379E-06	-9.600774E-08	-4.199356E-06	-4.167407E-05	7.239310E-07
41525.	1.509989E-04	-1.271756E-06	-8.508061E-08	-4.686900E-06	-4.642155E-05	7.715347E-07
41527.	1.557212E-04	-1.385458E-06	-6.646549E-08	-5.182824E-06	-5.131108E-05	8.969909E-07
41529.	1.593127E-04	-1.492788E-06	-5.494793E-08	-5.686865E-06	-5.631740E-05	9.007665E-07
41531.	1.616945E-04	-1.583790E-06	-3.328520E-08	-6.200262E-06	-6.138830E-05	9.463627E-07
41533.	1.628561E-04	-1.666059E-06	-7.398268E-09	-6.723496E-06	-6.641056E-05	9.951997E-07
41535.	1.628003E-04	-1.738931E-06	1.134578E-08	-7.239651E-06	-7.117106E-05	9.461899E-07
41537.	1.614857E-04	-1.806750E-06	3.907260E-08	-7.745987E-06	-7.582605E-05	9.775292E-07
41539.	1.589054E-04	-1.886726E-06	6.573584E-08	-8.235199E-06	-8.037179E-05	1.020230E-06
41541.	1.551384E-04	-1.959475E-06	8.367489E-08	-8.706945E-06	-8.467764E-05	9.707107E-07
41543.	1.502666E-04	-2.029655E-06	1.117818E-07	-9.158925E-06	-8.890158E-05	1.017084E-06
41545.	1.442831E-04	-2.111421E-06	1.356206E-07	-9.585350E-06	-9.304002E-05	1.038072E-06
41547.	1.372541E-04	-2.183398E-06	1.524210E-07	-9.985016E-06	-9.694150E-05	9.945182E-07
41549.	1.293472E-04	-2.255586E-06	1.798451E-07	-1.035586E-05	-1.007934E-04	1.049636E-06
41551.	1.205635E-04	-2.337856E-06	1.999660E-07	-1.069410E-05	-1.045940E-04	1.048695E-06
41553.	1.109503E-04	-2.408306E-06	2.153165E-07	-1.099810E-05	-1.081730E-04	1.016742E-06
41555.	1.007438E-04	-2.481841E-06	2.409332E-07	-1.126587E-05	-1.117414E-04	1.073207E-06
41557.	8.996489E-05	-2.563101E-06	2.566113E-07	-1.149585E-05	-1.153020E-04	1.052628E-06
41559.	7.864111E-05	-2.631237E-06	2.702242E-07	-1.168648E-05	-1.186684E-04	1.036262E-06
41561.	6.705032E-05	-2.705187E-06	2.929145E-07	-1.183595E-05	-1.220683E-04	1.086513E-06
41563.	5.524384E-05	-2.783805E-06	3.036620E-07	-1.194474E-05	-1.255103E-04	1.050848E-06
41565.	4.323113E-05	-2.848866E-06	3.153055E-07	-1.201187E-05	-1.287968E-04	1.051856E-06
41567.	3.132110E-05	-2.922363E-06	3.341065E-07	-1.203577E-05	-1.322338E-04	1.089215E-06
41569.	1.953635E-05	-2.996477E-06	3.397067E-07	-1.201874E-05	-1.355585E-04	1.044849E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
41571.	7.934940E-06	-3.057813E-06	3.491787E-07	-1.196072E-05	-1.389114E-04	1.062440E-06
41573.	-3.219272E-06	-3.129335E-06	3.632463E-07	-1.186106E-05	-1.424605E-04	1.081838E-06
41575.	-1.387253E-05	-3.197774E-06	3.638376E-07	-1.172241E-05	-1.460163E-04	1.036295E-06
41577.	-2.397229E-05	-3.254894E-06	3.709417E-07	-1.154675E-05	-1.495840E-04	1.067148E-06
41579.	-3.330588E-05	-3.323160E-06	3.797156E-07	-1.133437E-05	-1.533890E-04	1.066153E-06
41581.	-4.179784E-05	-3.384804E-06	3.756543E-07	-1.108764E-05	-1.572503E-04	1.026969E-06
41583.	-4.939743E-05	-3.437436E-06	3.802146E-07	-1.081072E-05	-1.611718E-04	1.065974E-06
41585.	-5.596399E-05	-3.501337E-06	3.833274E-07	-1.050492E-05	-1.653644E-04	1.044623E-06
41587.	-6.141708E-05	-3.555558E-06	3.751291E-07	-1.017218E-05	-1.696544E-04	1.018516E-06
41589.	-6.569844E-05	-3.603787E-06	3.769280E-07	-9.818233E-06	-1.740473E-04	1.059208E-06
41591.	-6.875119E-05	-3.662650E-06	3.741670E-07	-9.445653E-06	-1.787349E-04	1.019976E-06
41593.	-7.050772E-05	-3.709463E-06	3.624538E-07	-9.055685E-06	-1.835500E-04	1.012155E-06
41595.	-7.089961E-05	-3.753977E-06	3.614115E-07	-8.655533E-06	-1.885570E-04	1.047367E-06
41597.	-6.995748E-05	-3.807509E-06	3.526734E-07	-8.247560E-06	-1.937561E-04	9.959410E-07
41599.	-6.763548E-05	-3.847667E-06	3.379110E-07	-7.833425E-06	-1.991019E-04	1.008805E-06
41601.	-6.387433E-05	-3.888750E-06	3.337591E-07	-7.421451E-06	-2.047741E-04	1.032154E-06
41603.	-5.875181E-05	-3.937655E-06	3.195520E-07	-7.013346E-06	-2.105807E-04	9.754894E-07
41605.	-5.227543E-05	-3.973001E-06	3.025869E-07	-6.611035E-06	-2.165354E-04	1.007826E-06
41607.	-4.441575E-05	-4.013431E-06	2.952474E-07	-6.221707E-06	-2.227936E-04	1.015248E-06
41609.	-3.524993E-05	-4.058897E-06	2.762363E-07	-5.848451E-06	-2.291989E-04	9.613126E-07
41611.	-2.485632E-05	-4.091741E-06	2.578007E-07	-5.492728E-06	-2.357390E-04	1.009919E-06
41613.	-1.323800E-05	-4.132758E-06	2.472569E-07	-5.160068E-06	-2.425596E-04	9.987471E-07
41615.	-4.577356E-07	-4.176563E-06	2.243727E-07	-4.854240E-06	-2.495154E-04	9.554234E-07
41617.	1.334032E-05	-4.209692E-06	2.052128E-07	-4.576588E-06	-2.565806E-04	1.015101E-06
41619.	2.811434E-05	-4.253545E-06	1.917047E-07	-4.330424E-06	-2.638930E-04	9.850264E-07
41621.	4.383060E-05	-4.297960E-06	1.660707E-07	-4.119745E-06	-2.713170E-04	9.592328E-07
41623.	6.029178E-05	-4.334489E-06	1.468945E-07	-3.945971E-06	-2.788154E-04	1.023235E-06
41625.	7.741534E-05	-4.383658E-06	1.308170E-07	-3.810109E-06	-2.865217E-04	9.757910E-07
41627.	9.520894E-05	-4.431244E-06	1.036706E-07	-3.715691E-06	-2.943068E-04	9.733092E-07
41629.	1.134210E-04	-4.474343E-06	8.529423E-08	-3.664578E-06	-3.021703E-04	1.034271E-06
41631.	1.318401E-04	-4.531423E-06	5.990242E-08	-3.652033E-06	-3.101143E-04	9.914678E-07
41633.	1.500908E-04	-4.581175E-06	5.993469E-08	-3.685319E-06	-3.181073E-04	1.012754E-06
41635.	1.666535E-04	-4.621345E-06	8.287127E-08	-3.754752E-06	-3.258663E-04	1.068339E-06
41637.	1.661651E-04	-4.671180E-06	8.746749E-08	-3.749765E-06	-3.311334E-04	1.072741E-06
41639.	1.663930E-04	-4.719980E-06	9.348176E-08	-3.750054E-06	-3.365366E-04	1.081155E-06

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41641.	1.652289E-04	-4.770083E-06	9.647224E-08	-3.734649E-06	-3.417690E-04	1.087734E-06
41643.	1.647701E-04	-4.819577E-06	1.008882E-07	-3.725565E-06	-3.471441E-04	1.094691E-06
41645.	1.649773E-04	-4.867607E-06	1.073488E-07	-3.726275E-06	-3.526592E-04	1.106270E-06
41647.	1.639161E-04	-4.917838E-06	1.096143E-07	-3.702305E-06	-3.580355E-04	1.114306E-06
41649.	1.635147E-04	-4.967074E-06	1.138611E-07	-3.689464E-06	-3.635583E-04	1.123656E-06
41651.	1.637052E-04	-5.014511E-06	1.205589E-07	-3.690512E-06	-3.692201E-04	1.138120E-06
41653.	1.627949E-04	-5.064882E-06	1.223197E-07	-3.659006E-06	-3.747807E-04	1.147286E-06
41655.	1.624729E-04	-5.113935E-06	1.264147E-07	-3.642952E-06	-3.804858E-04	1.158579E-06
41657.	1.626499E-04	-5.160944E-06	1.332419E-07	-3.644296E-06	-3.863242E-04	1.175633E-06
41659.	1.701376E-04	-5.205672E-06	1.250795E-07	-3.975260E-06	-3.932904E-04	1.146478E-06
41661.	1.818338E-04	-5.250795E-06	1.078703E-07	-4.558895E-06	-4.009289E-04	1.122275E-06
41663.	1.929729E-04	-5.291812E-06	9.683154E-08	-5.189141E-06	-4.085421E-04	1.217286E-06
41665.	2.027139E-04	-5.348085E-06	8.752718E-08	-5.825882E-06	-4.160196E-04	1.180099E-06
41667.	2.116758E-04	-5.409835E-06	7.199952E-08	-6.513049E-06	-4.234551E-04	1.179924E-06
41669.	2.194442E-04	-5.469990E-06	6.498086E-08	-7.216048E-06	-4.308653E-04	1.268974E-06
41671.	2.258071E-04	-5.546069E-06	5.848793E-08	-7.915630E-06	-4.379728E-04	1.219348E-06
41673.	2.312222E-04	-5.625358E-06	4.599295E-08	-8.661226E-06	-4.451052E-04	1.244835E-06
41675.	2.353638E-04	-5.705199E-06	4.291652E-08	-9.416735E-06	-4.522133E-04	1.323820E-06
41677.	2.381379E-04	-5.800914E-06	3.935394E-08	-1.015773E-05	-4.590113E-04	1.263602E-06
41679.	2.397379E-04	-5.898204E-06	3.073033E-08	-1.090905E-05	-4.658152E-04	1.314427E-06
41681.	2.401042E-04	-5.997351E-06	3.151734E-08	-1.169618E-05	-4.726085E-04	1.380641E-06
41683.	2.392032E-04	-6.111878E-06	3.076670E-08	-1.245846E-05	-4.790912E-04	1.311962E-06
41685.	2.370969E-04	-6.222805E-06	2.939026E-08	-1.324706E-05	-4.855788E-04	1.418005E-06
41687.	2.336274E-04	-6.343506E-06	3.014651E-08	-1.405531E-05	-4.920527E-04	1.437934E-06
41689.	2.290542E-04	-6.476080E-06	3.201238E-08	-1.481969E-05	-4.982212E-04	1.363439E-06
41691.	2.234130E-04	-6.604778E-06	3.468450E-08	-1.557418E-05	-5.044251E-04	1.474775E-06
41695.	2.110151E-04	-6.817347E-06	2.038937E-07	-1.680710E-05	-5.179966E-04	1.670951E-06
41697.	2.035256E-04	-6.905582E-06	2.928623E-07	-1.740952E-05	-5.257058E-04	1.913194E-06
41699.	1.950153E-04	-6.991172E-06	3.857316E-07	-1.800855E-05	-5.341210E-04	2.042524E-06
41701.	1.856154E-04	-7.073691E-06	4.752027E-07	-1.858872E-05	-5.428669E-04	2.118674E-06
41703.	1.754737E-04	-7.142299E-06	5.645419E-07	-1.915656E-05	-5.523367E-04	2.352364E-06
41705.	1.643751E-04	-7.208725E-06	6.566903E-07	-1.971461E-05	-5.624855E-04	2.458027E-06
41709.	1.398345E-04	-7.319540E-06	8.325853E-07	-2.077314E-05	-5.840147E-04	2.758302E-06
41711.	1.263433E-04	-7.366506E-06	9.225086E-07	-2.127833E-05	-5.957586E-04	2.836692E-06
41715.	9.714427E-05	-7.436527E-06	1.092831E-06	-2.222389E-05	-6.202694E-04	3.122045E-06

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41728.	-1.610055E-05	-7.480467E-06	1.608583E-06	-2.464818E-05	-7.117740E-04	3.700372E-06
41732.	-5.543915E-05	-7.435425E-06	1.746192E-06	-2.516010E-05	-7.424102E-04	3.854999E-06
41736.	-9.661341E-05	-7.365710E-06	1.873474E-06	-2.555004E-05	-7.740193E-04	3.864513E-06
41740.	-1.389354E-04	-7.266390E-06	1.989410E-06	-2.581573E-05	-8.064106E-04	3.963533E-06
41744.	-1.821800E-04	-7.141208E-06	2.089343E-06	-2.594380E-05	-8.388223E-04	4.054426E-06
41748.	-2.258881E-04	-6.992458E-06	2.174978E-06	-2.593589E-05	-8.713280E-04	3.989034E-06
41752.	-2.695769E-04	-6.818170E-06	2.246420E-06	-2.578912E-05	-9.040054E-04	3.942432E-06
41756.	-3.129053E-04	-6.619704E-06	2.300643E-06	-2.550468E-05	-9.361016E-04	3.961616E-06
41760.	-3.551789E-04	-6.400126E-06	2.338517E-06	-2.508520E-05	-9.674083E-04	3.829385E-06
41764.	-3.961279E-04	-6.159400E-06	2.360388E-06	-2.452899E-05	-9.981341E-04	3.641330E-06
41768.	-4.353415E-04	-5.899139E-06	2.365657E-06	-2.384787E-05	-1.027568E-03	3.582813E-06
41772.	-4.719427E-04	-5.621521E-06	2.354959E-06	-2.305111E-05	-1.055572E-03	3.391362E-06
41776.	-5.060144E-04	-5.327297E-06	2.328573E-06	-2.213623E-05	-1.082314E-03	3.087845E-06
41780.	-5.370555E-04	-5.020135E-06	2.286999E-06	-2.112459E-05	-1.107170E-03	2.930716E-06
41782.	-5.511394E-04	-4.861068E-06	2.261551E-06	-2.058557E-05	-1.118930E-03	2.731729E-06
41784.	-5.644250E-04	-4.701028E-06	2.232076E-06	-2.002839E-05	-1.130038E-03	2.697236E-06
41786.	-5.768601E-04	-4.536822E-06	2.198885E-06	-1.944649E-05	-1.140898E-03	2.523184E-06
41788.	-5.881781E-04	-4.370583E-06	2.164028E-06	-1.885083E-05	-1.151119E-03	2.332499E-06
41790.	-5.985913E-04	-4.204400E-06	2.124857E-06	-1.824098E-05	-1.160636E-03	2.274993E-06
41792.	-6.080086E-04	-4.034182E-06	2.082578E-06	-1.761410E-05	-1.169841E-03	2.071593E-06
41794.	-6.163378E-04	-3.863471E-06	2.039537E-06	-1.697647E-05	-1.178220E-03	1.895517E-06
41796.	-6.236257E-04	-3.693117E-06	1.991772E-06	-1.633028E-05	-1.186122E-03	1.816466E-06
41798.	-6.298404E-04	-3.519108E-06	1.941784E-06	-1.567441E-05	-1.193537E-03	1.590912E-06
41800.	-6.350033E-04	-3.346552E-06	1.891665E-06	-1.501207E-05	-1.200096E-03	1.433900E-06
41802.	-6.390459E-04	-3.174500E-06	1.836613E-06	-1.434577E-05	-1.206262E-03	1.334680E-06
41804.	-6.419928E-04	-2.999465E-06	1.780472E-06	-1.367627E-05	-1.211681E-03	1.094030E-06
41806.	-6.439274E-04	-2.827947E-06	1.724398E-06	-1.300574E-05	-1.216347E-03	9.585668E-07
41808.	-6.447045E-04	-2.656898E-06	1.663525E-06	-1.233457E-05	-1.220593E-03	8.423708E-07
41810.	-6.443926E-04	-2.483617E-06	1.602612E-06	-1.166852E-05	-1.224093E-03	5.930186E-07
41812.	-6.431269E-04	-2.316053E-06	1.541611E-06	-1.100594E-05	-1.226838E-03	4.801830E-07
41814.	-6.406970E-04	-2.148802E-06	1.476288E-06	-1.034580E-05	-1.229149E-03	3.508166E-07
41816.	-6.372347E-04	-1.980317E-06	1.411943E-06	-9.698724E-06	-1.230726E-03	9.986161E-08
41818.	-6.328787E-04	-1.819650E-06	1.346926E-06	-9.059403E-06	-1.231566E-03	9.118863E-09
41820.	-6.273768E-04	-1.659200E-06	1.278433E-06	-8.425690E-06	-1.231973E-03	-1.281931E-07
41822.	-6.209457E-04	-1.498743E-06	1.211826E-06	-7.812224E-06	-1.231672E-03	-3.736698E-07

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41824.	-6.136818E-04	-1.347995E-06	1.143572E-06	-7.210666E-06	-1.230669E-03	-4.430694E-07
41826.	-6.053340E-04	-1.197226E-06	1.072937E-06	-6.618724E-06	-1.229248E-03	-5.911199E-07
41828.	-5.961590E-04	-1.048574E-06	1.005127E-06	-6.051644E-06	-1.227163E-03	-8.160714E-07
41830.	-5.862332E-04	-9.108775E-07	9.342822E-07	-5.501348E-06	-1.224425E-03	-8.656759E-07
41832.	-5.753261E-04	-7.729913E-07	8.624891E-07	-4.965087E-06	-1.221297E-03	-1.024055E-06
41834.	-5.636909E-04	-6.400974E-07	7.941564E-07	-4.456577E-06	-1.217568E-03	-1.216385E-06
41836.	-5.513954E-04	-5.185568E-07	7.217069E-07	-3.968955E-06	-1.213251E-03	-1.255187E-06
41838.	-5.382733E-04	-3.974221E-07	6.491993E-07	-3.501686E-06	-1.208582E-03	-1.411550E-06
41840.	-5.245282E-04	-2.842650E-07	5.806939E-07	-3.063342E-06	-1.203387E-03	-1.564662E-06
41842.	-5.102119E-04	-1.824915E-07	5.072480E-07	-2.649851E-06	-1.197687E-03	-1.593311E-06
41844.	-4.952631E-04	-8.199262E-08	4.346145E-07	-2.262419E-06	-1.191682E-03	-1.743808E-06
41846.	-4.798043E-04	7.244800E-09	3.660676E-07	-1.904632E-06	-1.185241E-03	-1.852302E-06
41848.	-4.638648E-04	8.533281E-08	2.921274E-07	-1.575560E-06	-1.178389E-03	-1.870659E-06
41850.	-4.475196E-04	1.610120E-07	2.198790E-07	-1.277099E-06	-1.171290E-03	-2.011049E-06
41852.	-4.307968E-04	2.220487E-07	1.513092E-07	-1.008883E-06	-1.163850E-03	-2.072586E-06
41854.	-4.137140E-04	2.724271E-07	7.722893E-08	-7.732077E-07	-1.156138E-03	-2.080848E-06
41856.	-3.964306E-04	3.187302E-07	5.921368E-09	-5.704753E-07	-1.148176E-03	-2.205835E-06
41858.	-3.897855E-04	3.299110E-07	-2.504234E-08	-5.037160E-07	-1.138448E-03	-2.158435E-06
41860.	-3.912525E-04	3.315049E-07	-2.624033E-08	-5.188376E-07	-1.127466E-03	-2.165639E-06
41862.	-3.920048E-04	3.342999E-07	-3.006283E-08	-5.265736E-07	-1.116549E-03	-2.174273E-06
41864.	-3.920228E-04	3.377694E-07	-3.645864E-08	-5.300004E-07	-1.105704E-03	-2.180725E-06
41866.	-3.935100E-04	3.395621E-07	-3.784727E-08	-5.369500E-07	-1.094608E-03	-2.186704E-06
41868.	-3.942642E-04	3.423331E-07	-4.180553E-08	-5.407079E-07	-1.083590E-03	-2.193108E-06
41870.	-3.942933E-04	3.455005E-07	-4.828435E-08	-5.443876E-07	-1.072655E-03	-2.196549E-06
41872.	-3.957528E-04	3.474800E-07	-4.990731E-08	-5.430729E-07	-1.061485E-03	-2.201030E-06
41874.	-3.964834E-04	3.501666E-07	-5.400443E-08	-5.428873E-07	-1.050405E-03	-2.205341E-06
41876.	-3.965228E-04	3.529312E-07	-6.052762E-08	-5.467876E-07	-1.039413E-03	-2.205689E-06
41878.	-3.979045E-04	3.550815E-07	-6.244990E-08	-5.374237E-07	-1.028212E-03	-2.208577E-06
41880.	-3.985854E-04	3.576091E-07	-6.668911E-08	-5.335045E-07	-1.017107E-03	-2.210924E-06
41882.	-3.986347E-04	3.598714E-07	-7.318020E-08	-5.376401E-07	-1.006092E-03	-2.208407E-06
41884.	-3.998900E-04	3.621590E-07	-7.550566E-08	-5.208104E-07	-9.949001E-04	-2.209636E-06
41886.	-3.999412E-04	3.642300E-07	-8.179865E-08	-5.259832E-07	-9.838874E-04	-2.208332E-06
41888.	-3.987661E-04	3.633780E-07	-8.198154E-08	-5.631262E-07	-9.730638E-04	-2.206797E-06
41890.	-3.850392E-04	3.499518E-07	-7.267030E-08	-9.445571E-07	-9.640898E-04	-2.253120E-06
41892.	-3.736601E-04	3.279281E-07	-6.294853E-08	-1.313043E-06	-9.547770E-04	-2.201197E-06

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41894.	-3.624562E-04	3.077463E-07	-5.499529E-08	-1.726354E-06	-9.454632E-04	-2.197073E-06
41900.	-3.349202E-04	2.558165E-07	-2.986458E-08	-3.088022E-06	-9.155046E-04	-2.364341E-06
41902.	-3.285155E-04	2.327954E-07	-3.114462E-08	-3.539581E-06	-9.048169E-04	-2.368982E-06
41904.	-3.231016E-04	2.024424E-07	-2.397256E-08	-4.005817E-06	-8.940438E-04	-2.343335E-06
41906.	-3.188701E-04	1.711211E-07	-2.333650E-08	-4.477983E-06	-8.831498E-04	-2.332029E-06
41908.	-3.157942E-04	1.394605E-07	-2.789838E-08	-4.955186E-06	-8.720421E-04	-2.347027E-06
41910.	-3.138031E-04	9.773016E-08	-2.544454E-08	-5.437560E-06	-8.608377E-04	-2.310351E-06
41912.	-3.131088E-04	5.662960E-08	-2.925215E-08	-5.897007E-06	-8.495010E-04	-2.299154E-06
41914.	-3.135776E-04	1.589831E-08	-3.764181E-08	-6.351911E-06	-8.379442E-04	-2.322812E-06
41916.	-3.151386E-04	-3.845057E-08	-4.157061E-08	-6.799459E-06	-8.262739E-04	-2.268573E-06
41918.	-3.178030E-04	-8.930645E-08	-5.651486E-08	-7.230448E-06	-8.144811E-04	-2.278323E-06
41920.	-3.215702E-04	-1.401099E-07	-6.177121E-08	-7.641879E-06	-8.024620E-04	-2.305834E-06
41922.	-3.262801E-04	-2.065810E-07	-7.204212E-08	-8.029477E-06	-7.903475E-04	-2.251827E-06
41924.	-3.319040E-04	-2.673071E-07	-9.132849E-08	-8.392144E-06	-7.781430E-04	-2.277110E-06
41926.	-3.384570E-04	-3.310830E-07	-1.000572E-07	-8.727720E-06	-7.657321E-04	-2.287442E-06
41928.	-3.457514E-04	-4.094929E-07	-1.166639E-07	-9.031626E-06	-7.532563E-04	-2.240810E-06
41930.	-3.537264E-04	-4.802049E-07	-1.393756E-07	-9.303835E-06	-7.406857E-04	-2.276943E-06
41932.	-3.623631E-04	-5.573500E-07	-1.517961E-07	-9.542688E-06	-7.280260E-04	-2.269677E-06
41934.	-3.714933E-04	-6.470636E-07	-1.745127E-07	-9.744356E-06	-7.153380E-04	-2.236585E-06
41936.	-3.810501E-04	-7.275075E-07	-1.997535E-07	-9.909367E-06	-7.025071E-04	-2.277115E-06
41938.	-3.909508E-04	-8.175091E-07	-2.155482E-07	-1.003734E-05	-6.896734E-04	-2.254700E-06
41940.	-4.010642E-04	-9.170822E-07	-2.434046E-07	-1.012530E-05	-6.768502E-04	-2.239746E-06
41942.	-4.113021E-04	-1.006763E-06	-2.703529E-07	-1.017344E-05	-6.639264E-04	-2.277815E-06
41944.	-4.215457E-04	-1.108429E-06	-2.893192E-07	-1.018352E-05	-6.510034E-04	-2.245123E-06
41946.	-4.316976E-04	-1.216112E-06	-3.212505E-07	-1.015367E-05	-6.381743E-04	-2.249883E-06
41948.	-4.416645E-04	-1.314056E-06	-3.489516E-07	-1.008356E-05	-6.252889E-04	-2.279361E-06
41950.	-4.512952E-04	-1.425676E-06	-3.708221E-07	-9.976770E-06	-6.124914E-04	-2.242382E-06
41952.	-4.605260E-04	-1.539394E-06	-4.057091E-07	-9.832957E-06	-5.997859E-04	-2.266226E-06
41954.	-4.692727E-04	-1.644423E-06	-4.333531E-07	-9.651242E-06	-5.870681E-04	-2.282302E-06
41956.	-4.773632E-04	-1.763982E-06	-4.578327E-07	-9.436688E-06	-5.744781E-04	-2.247668E-06
41958.	-4.847599E-04	-1.881717E-06	-4.945036E-07	-9.190602E-06	-5.620175E-04	-2.287621E-06
41960.	-4.914047E-04	-1.992682E-06	-5.214204E-07	-8.911901E-06	-5.495855E-04	-2.287257E-06
41962.	-4.971106E-04	-2.118423E-06	-5.481500E-07	-8.607003E-06	-5.373490E-04	-2.261731E-06
41964.	-5.018760E-04	-2.238219E-06	-5.853059E-07	-8.276955E-06	-5.252026E-04	-2.312122E-06
41966.	-5.056596E-04	-2.354096E-06	-6.109590E-07	-7.922700E-06	-5.131564E-04	-2.294764E-06

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41968.	-5.082980E-04	-2.483852E-06	-6.393217E-07	-7.550206E-06	-5.013224E-04	-2.283634E-06
41970.	-5.097813E-04	-2.604741E-06	-6.756789E-07	-7.161388E-06	-4.896126E-04	-2.337695E-06
41972.	-5.101245E-04	-2.724686E-06	-6.996063E-07	-6.758331E-06	-4.780266E-04	-2.305328E-06
41974.	-5.091996E-04	-2.856842E-06	-7.288275E-07	-6.346356E-06	-4.666569E-04	-2.312284E-06
41976.	-5.069779E-04	-2.978063E-06	-7.630704E-07	-5.927879E-06	-4.554360E-04	-2.362331E-06
41978.	-5.035263E-04	-3.101446E-06	-7.848685E-07	-5.506376E-06	-4.443539E-04	-2.318965E-06
41982.	-4.926620E-04	-3.355990E-06	-8.450240E-07	-4.669425E-06	-4.227681E-04	-2.384345E-06
41984.	-4.853050E-04	-3.482378E-06	-8.643819E-07	-4.261284E-06	-4.122009E-04	-2.335513E-06
41986.	-4.767019E-04	-3.615921E-06	-8.926488E-07	-3.864660E-06	-4.018213E-04	-2.381110E-06
41988.	-4.667750E-04	-3.737383E-06	-9.193021E-07	-3.481627E-06	-3.916055E-04	-2.402482E-06
41990.	-4.556614E-04	-3.866577E-06	-9.359958E-07	-3.118080E-06	-3.815299E-04	-2.354432E-06
41992.	-4.434438E-04	-3.999968E-06	-9.623875E-07	-2.776011E-06	-3.716114E-04	-2.415893E-06
41994.	-4.300258E-04	-4.122207E-06	-9.840211E-07	-2.456625E-06	-3.618450E-04	-2.415904E-06
41996.	-4.155822E-04	-4.254453E-06	-9.978997E-07	-2.166987E-06	-3.522041E-04	-2.375166E-06
41998.	-4.001980E-04	-4.387509E-06	-1.021563E-06	-1.906789E-06	-3.426831E-04	-2.447137E-06
42000.	-3.838460E-04	-4.511425E-06	-1.037734E-06	-1.677589E-06	-3.332901E-04	-2.424146E-06
42002.	-3.666758E-04	-4.646729E-06	-1.048751E-06	-1.485873E-06	-3.239946E-04	-2.395854E-06
42004.	-3.490061E-04	-4.787696E-06	-1.066380E-06	-1.332359E-06	-3.147512E-04	-2.475933E-06
42006.	-3.312947E-04	-4.946313E-06	-1.065436E-06	-1.218658E-06	-3.054493E-04	-2.440696E-06
42008.	-3.133562E-04	-5.125384E-06	-1.057439E-06	-1.147547E-06	-2.961093E-04	-2.436876E-06
42010.	-2.953696E-04	-5.307333E-06	-1.052443E-06	-1.117940E-06	-2.867295E-04	-2.514602E-06
42012.	-2.773147E-04	-5.488579E-06	-1.032516E-06	-1.125982E-06	-2.773384E-04	-2.448291E-06
42014.	-2.591416E-04	-5.679931E-06	-1.010761E-06	-1.175911E-06	-2.679734E-04	-2.447976E-06
42016.	-2.411614E-04	-5.867030E-06	-9.910526E-07	-1.267496E-06	-2.586287E-04	-2.495933E-06
42018.	-2.233708E-04	-6.051730E-06	-9.570184E-07	-1.395948E-06	-2.493348E-04	-2.396661E-06
42020.	-2.056945E-04	-6.241864E-06	-9.247539E-07	-1.565183E-06	-2.401415E-04	-2.396051E-06
42022.	-1.884678E-04	-6.424050E-06	-8.927003E-07	-1.774642E-06	-2.310451E-04	-2.404020E-06
42024.	-1.717032E-04	-6.604242E-06	-8.474788E-07	-2.019318E-06	-2.220764E-04	-2.279051E-06
42026.	-1.553433E-04	-6.787047E-06	-8.059909E-07	-2.301989E-06	-2.132883E-04	-2.270946E-06
42028.	-1.396501E-04	-6.959432E-06	-7.629440E-07	-2.621494E-06	-2.046886E-04	-2.231948E-06
42030.	-1.246612E-04	-7.130501E-06	-7.087252E-07	-2.973938E-06	-1.963029E-04	-2.090060E-06
42032.	-1.104021E-04	-7.302590E-06	-6.588838E-07	-3.358976E-06	-1.881721E-04	-2.070062E-06
42034.	-9.698255E-05	-7.462440E-06	-6.058635E-07	-3.776079E-06	-1.803242E-04	-1.981701E-06
42036.	-8.451501E-05	-7.621844E-06	-5.438938E-07	-4.222311E-06	-1.727702E-04	-1.827884E-06
42038.	-7.302366E-05	-7.780284E-06	-4.867808E-07	-4.695895E-06	-1.655459E-04	-1.796618E-06

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42040.	-6.256392E-05	-7.925470E-06	-4.246122E-07	-5.195401E-06	-1.586895E-04	-1.659405E-06
42042.	-5.324477E-05	-8.070627E-06	-3.559108E-07	-5.719800E-06	-1.522121E-04	-1.498114E-06
42044.	-4.511434E-05	-8.213767E-06	-2.922754E-07	-6.260834E-06	-1.461239E-04	-1.457007E-06
42046.	-3.812260E-05	-8.343374E-06	-2.217086E-07	-6.819880E-06	-1.404805E-04	-1.278279E-06
42052.	-2.491184E-05	-8.711308E-06	6.831090E-10	-8.576884E-06	-1.262289E-04	-8.570977E-07
42056.	-2.280320E-05	-8.929377E-06	1.554692E-07	-9.785301E-06	-1.190931E-04	-6.460694E-07
42060.	-2.603311E-05	-9.115738E-06	3.242494E-07	-1.099217E-05	-1.139353E-04	-3.006760E-07
42064.	-3.477577E-05	-9.269540E-06	4.954080E-07	-1.216695E-05	-1.107348E-04	1.245667E-08
42072.	-6.774271E-05	-9.483946E-06	8.551389E-07	-1.433882E-05	-1.100231E-04	4.867116E-07
42076.	-9.134252E-05	-9.525995E-06	1.043903E-06	-1.528031E-05	-1.123349E-04	7.809566E-07
42080.	-1.210972E-04	-9.490542E-06	1.186999E-06	-1.615507E-05	-1.157016E-04	8.885185E-07
42084.	-1.589186E-04	-9.362083E-06	1.235384E-06	-1.696921E-05	-1.185694E-04	8.807428E-07
42092.	-2.453235E-04	-9.087781E-06	1.325290E-06	-1.800295E-05	-1.233255E-04	9.884419E-07
42096.	-2.910285E-04	-8.951078E-06	1.367296E-06	-1.816966E-05	-1.255098E-04	9.268847E-07
42100.	-3.372999E-04	-8.798814E-06	1.411725E-06	-1.809893E-05	-1.276948E-04	1.021077E-06
42104.	-3.832241E-04	-8.641631E-06	1.445492E-06	-1.778554E-05	-1.299243E-04	9.347227E-07
42108.	-4.285666E-04	-8.466652E-06	1.478642E-06	-1.721813E-05	-1.322962E-04	9.455363E-07
42110.	-4.485468E-04	-8.374415E-06	1.494786E-06	-1.686954E-05	-1.338654E-04	9.253659E-07
42112.	-4.696823E-04	-8.274858E-06	1.513571E-06	-1.643050E-05	-1.352961E-04	1.004778E-06
42114.	-4.882527E-04	-8.173740E-06	1.522033E-06	-1.596835E-05	-1.369909E-04	9.425204E-07
42118.	-5.232687E-04	-7.954677E-06	1.551436E-06	-1.487752E-05	-1.407433E-04	9.777739E-07
42120.	-5.382812E-04	-7.837760E-06	1.557250E-06	-1.427564E-05	-1.428729E-04	9.300526E-07
42122.	-5.523129E-04	-7.717171E-06	1.567440E-06	-1.361368E-05	-1.451911E-04	8.782403E-07
42124.	-5.649833E-04	-7.586999E-06	1.579697E-06	-1.290298E-05	-1.476112E-04	9.400743E-07
42126.	-5.755293E-04	-7.452722E-06	1.583001E-06	-1.219028E-05	-1.502709E-04	9.077820E-07
42128.	-5.843322E-04	-7.314542E-06	1.589578E-06	-1.145350E-05	-1.532056E-04	8.434127E-07
42130.	-5.922357E-04	-7.167764E-06	1.598852E-06	-1.061584E-05	-1.561743E-04	8.937684E-07
42132.	-5.976542E-04	-7.015174E-06	1.599884E-06	-9.828135E-06	-1.594315E-04	8.765542E-07
42134.	-6.012669E-04	-6.858881E-06	1.603262E-06	-9.027447E-06	-1.629507E-04	8.040205E-07
42136.	-6.029515E-04	-6.698480E-06	1.633532E-06	-8.252653E-06	-1.665944E-04	7.029666E-07
42138.	-6.028979E-04	-6.520240E-06	1.710487E-06	-7.589647E-06	-1.697777E-04	6.287427E-07
42140.	-6.012914E-04	-6.323734E-06	1.786387E-06	-6.919034E-06	-1.724184E-04	4.261677E-07
42142.	-5.981209E-04	-6.105187E-06	1.856857E-06	-6.257093E-06	-1.744542E-04	2.098985E-07
42144.	-5.935138E-04	-5.860619E-06	1.927832E-06	-5.601425E-06	-1.758663E-04	1.293159E-07
42146.	-5.873924E-04	-5.598882E-06	1.997193E-06	-4.953260E-06	-1.767310E-04	-8.833356E-08

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42148.	-5.798197E-04	-5.315301E-06	2.061115E-06	-4.321579E-06	-1.770110E-04	-2.643561E-07
42148.	-5.798197E-04	-5.315301E-06	2.061115E-06	-4.321579E-06	-1.770110E-04	-2.643575E-07
42150.	-5.708312E-04	-5.009018E-06	2.125659E-06	-3.706016E-06	-1.767145E-04	-3.478552E-07
42152.	-5.604807E-04	-4.687028E-06	2.188117E-06	-3.112205E-06	-1.758922E-04	-5.700665E-07
42154.	-5.488574E-04	-4.344136E-06	2.245510E-06	-2.541926E-06	-1.745353E-04	-6.955687E-07
42156.	-5.358904E-04	-3.982113E-06	2.303429E-06	-1.997148E-06	-1.726843E-04	-7.783602E-07
42158.	-5.217789E-04	-3.606305E-06	2.358751E-06	-1.484868E-06	-1.703526E-04	-9.932247E-07
42160.	-5.066346E-04	-3.211181E-06	2.409743E-06	-1.003175E-06	-1.675652E-04	-1.062862E-06
42162.	-4.902421E-04	-2.800693E-06	2.460849E-06	-5.539477E-07	-1.643883E-04	-1.139750E-06
42164.	-4.730362E-04	-2.378442E-06	2.509192E-06	-1.470826E-07	-1.608102E-04	-1.335242E-06
42166.	-4.550485E-04	-1.939166E-06	2.554038E-06	2.237626E-07	-1.568865E-04	-1.345440E-06
42168.	-4.359503E-04	-1.488266E-06	2.598442E-06	5.566548E-07	-1.527167E-04	-1.407186E-06
42170.	-4.164245E-04	-1.027936E-06	2.640037E-06	8.411265E-07	-1.482559E-04	-1.571786E-06
42172.	-3.963615E-04	-5.534799E-07	2.678933E-06	1.085920E-06	-1.435711E-04	-1.530016E-06
42174.	-3.754165E-04	-7.105337E-08	2.716966E-06	1.288622E-06	-1.387684E-04	-1.588505E-06
42176.	-3.543524E-04	4.187786E-07	2.751977E-06	1.440631E-06	-1.337941E-04	-1.703325E-06
42178.	-3.329941E-04	9.191551E-07	2.785074E-06	1.550861E-06	-1.287250E-04	-1.629952E-06
42180.	-3.111451E-04	1.424627E-06	2.817170E-06	1.614886E-06	-1.236497E-04	-1.671771E-06
42182.	-2.893925E-04	1.935204E-06	2.846095E-06	1.629518E-06	-1.185431E-04	-1.725404E-06
42184.	-2.675990E-04	2.452680E-06	2.873702E-06	1.601185E-06	-1.134735E-04	-1.625389E-06
42186.	-2.457310E-04	2.972530E-06	2.900175E-06	1.526072E-06	-1.085063E-04	-1.651435E-06
42188.	-2.241530E-04	3.495220E-06	2.923567E-06	1.404657E-06	-1.036490E-04	-1.639074E-06
42190.	-2.027790E-04	4.021316E-06	2.945999E-06	1.239951E-06	-9.895744E-05	-1.518186E-06
42192.	-1.817393E-04	4.547281E-06	2.967171E-06	1.031092E-06	-9.447088E-05	-1.529111E-06
42194.	-1.611691E-04	5.073870E-06	2.985535E-06	7.804277E-07	-9.022699E-05	-1.450507E-06
42196.	-1.410298E-04	5.600662E-06	3.003076E-06	4.868225E-07	-8.626937E-05	-1.314861E-06
42198.	-1.216013E-04	6.125080E-06	3.019247E-06	1.544921E-07	-8.261032E-05	-1.310540E-06
42200.	-1.028120E-04	6.647954E-06	3.032988E-06	-2.140283E-07	-7.931179E-05	-1.170148E-06
42202.	-8.464940E-05	7.168211E-06	3.045863E-06	-6.241758E-07	-7.640763E-05	-1.025637E-06
42204.	-6.751620E-05	7.684137E-06	3.057277E-06	-1.065150E-06	-7.388501E-05	-1.005818E-06
42206.	-5.117975E-05	8.196403E-06	3.066664E-06	-1.536150E-06	-7.182072E-05	-8.129046E-07
42208.	-3.564389E-05	8.703686E-06	3.075006E-06	-2.046401E-06	-7.024031E-05	-6.638048E-07
42210.	-2.138342E-05	9.204963E-06	3.081821E-06	-2.577854E-06	-6.911202E-05	-6.283547E-07
42212.	-8.065206E-06	9.700525E-06	3.086953E-06	-3.133021E-06	-6.851661E-05	-3.944814E-07
42214.	4.294874E-06	1.018921E-05	3.090799E-06	-3.722892E-06	-6.847208E-05	-2.528125E-07

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42216.	1.523994E-05	1.067047E-05	3.093054E-06	-4.325365E-06	-6.894080E-05	-1.938170E-07
42218.	2.513866E-05	1.114405E-05	3.093842E-06	-4.945385E-06	-6.999635E-05	5.673788E-08
42220.	3.385835E-05	1.160922E-05	3.092935E-06	-5.591963E-06	-7.163539E-05	1.930285E-07
42222.	4.112427E-05	1.206564E-05	3.090430E-06	-6.245475E-06	-7.384765E-05	2.846913E-07
42224.	4.725401E-05	1.251252E-05	3.086457E-06	-6.909791E-06	-7.668656E-05	5.410767E-07
42226.	5.210689E-05	1.294998E-05	3.080594E-06	-7.589088E-06	-8.013872E-05	6.673913E-07
42232.	5.866933E-05	1.420063E-05	3.053195E-06	-9.643246E-06	-9.419227E-05	1.149249E-06
42234.	5.822440E-05	1.459610E-05	3.040834E-06	-1.032822E-05	-1.001147E-04	1.298236E-06
42236.	5.654551E-05	1.497945E-05	3.026305E-06	-1.101006E-05	-1.067303E-04	1.534669E-06
42238.	5.354556E-05	1.535201E-05	3.009277E-06	-1.168709E-05	-1.137912E-04	1.624361E-06
42240.	4.931246E-05	1.571254E-05	2.991304E-06	-1.235437E-05	-1.215376E-04	1.796773E-06
42242.	4.382831E-05	1.606015E-05	2.970548E-06	-1.301283E-05	-1.299495E-04	2.010887E-06
42244.	3.711912E-05	1.639667E-05	2.947079E-06	-1.365615E-05	-1.387609E-04	2.079061E-06
42246.	2.931602E-05	1.671992E-05	2.922830E-06	-1.428494E-05	-1.482392E-04	2.268999E-06
42248.	2.027218E-05	1.702982E-05	2.895113E-06	-1.489992E-05	-1.583368E-04	2.454659E-06
42250.	1.016721E-05	1.732850E-05	2.864558E-06	-1.549056E-05	-1.687792E-04	2.500880E-06
42252.	-8.768077E-07	1.761254E-05	2.833243E-06	-1.606205E-05	-1.798504E-04	2.700514E-06
42254.	-1.311626E-05	1.788317E-05	2.797808E-06	-1.661541E-05	-1.914797E-04	2.853723E-06
42256.	-2.619561E-05	1.814253E-05	2.759512E-06	-1.713685E-05	-2.033916E-04	2.878494E-06
42258.	-4.004982E-05	1.838578E-05	2.720257E-06	-1.763490E-05	-2.158762E-04	3.078711E-06
42260.	-5.498653E-05	1.861600E-05	2.676241E-06	-1.811060E-05	-2.288508E-04	3.190212E-06
42262.	-7.055483E-05	1.883474E-05	2.629744E-06	-1.854969E-05	-2.420309E-04	3.202117E-06
42264.	-8.671197E-05	1.903602E-05	2.581679E-06	-1.896155E-05	-2.557152E-04	3.390447E-06
42266.	-1.037603E-04	1.922493E-05	2.528319E-06	-1.934660E-05	-2.698193E-04	3.456566E-06
42268.	-1.212673E-04	1.940187E-05	2.473239E-06	-1.969302E-05	-2.840367E-04	3.463702E-06
42270.	-1.391773E-04	1.956047E-05	2.415642E-06	-2.000950E-05	-2.986771E-04	3.625068E-06
42272.	-1.577072E-04	1.970722E-05	2.352382E-06	-2.029462E-05	-3.136687E-04	3.652482E-06
42274.	-1.765417E-04	1.984139E-05	2.288357E-06	-2.054120E-05	-3.286721E-04	3.657086E-06
42276.	-1.955950E-04	1.995666E-05	2.220686E-06	-2.075590E-05	-3.440086E-04	3.786729E-06
42278.	-2.149737E-04	2.006083E-05	2.147245E-06	-2.093665E-05	-3.596238E-04	3.774394E-06
42280.	-2.345031E-04	2.015140E-05	2.074100E-06	-2.108027E-05	-3.751472E-04	3.778379E-06
42282.	-2.540731E-04	2.022300E-05	1.996107E-06	-2.119079E-05	-3.909084E-04	3.872987E-06
42284.	-2.736763E-04	2.028436E-05	1.912559E-06	-2.126668E-05	-4.068719E-04	3.822489E-06
42286.	-2.932791E-04	2.033073E-05	1.830340E-06	-2.130785E-05	-4.226414E-04	3.826049E-06
42288.	-3.127355E-04	2.035860E-05	1.742078E-06	-2.131567E-05	-4.385547E-04	3.883759E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42290.	-3.320130E-04	2.037719E-05	1.649042E-06	-2.128992E-05	-4.544595E-04	3.798647E-06
42292.	-3.511119E-04	2.037910E-05	1.558137E-06	-2.123294E-05	-4.702005E-04	3.801012E-06
42294.	-3.699338E-04	2.036357E-05	1.460366E-06	-2.114330E-05	-4.861068E-04	3.821864E-06
42296.	-3.883304E-04	2.033972E-05	1.358839E-06	-2.102313E-05	-5.018086E-04	3.707274E-06
42298.	-4.064130E-04	2.029736E-05	1.260094E-06	-2.087557E-05	-5.172574E-04	3.707030E-06
42300.	-4.241155E-04	2.023923E-05	1.154152E-06	-2.069702E-05	-5.327749E-04	3.693137E-06
42302.	-4.443765E-04	2.019264E-05	1.101774E-06	-2.045387E-05	-5.475937E-04	3.667877E-06
42304.	-4.639737E-04	2.015823E-05	1.083341E-06	-2.018241E-05	-5.623685E-04	3.638263E-06
42306.	-4.838415E-04	2.011800E-05	1.055259E-06	-1.986673E-05	-5.772900E-04	3.652018E-06
42308.	-5.030778E-04	2.008065E-05	1.030425E-06	-1.952044E-05	-5.921557E-04	3.641934E-06
42310.	-5.201018E-04	2.004507E-05	1.010878E-06	-1.917675E-05	-6.072174E-04	3.620637E-06
42312.	-5.372491E-04	2.000546E-05	9.813675E-07	-1.879047E-05	-6.224341E-04	3.623014E-06
42314.	-5.536130E-04	1.996870E-05	9.556505E-07	-1.838079E-05	-6.376173E-04	3.612168E-06
42316.	-5.685155E-04	1.993350E-05	9.346549E-07	-1.796913E-05	-6.528852E-04	3.597185E-06
42318.	-5.821662E-04	1.989547E-05	9.057092E-07	-1.755130E-05	-6.684985E-04	3.591535E-06
42320.	-5.949913E-04	1.986009E-05	8.808749E-07	-1.711822E-05	-6.840872E-04	3.580443E-06
42322.	-6.069849E-04	1.982635E-05	8.598435E-07	-1.667456E-05	-6.996705E-04	3.569650E-06
42324.	-6.183437E-04	1.979183E-05	8.311463E-07	-1.621229E-05	-7.154986E-04	3.559676E-06
42326.	-6.283768E-04	1.975911E-05	8.073865E-07	-1.576050E-05	-7.313812E-04	3.549214E-06
42328.	-6.375879E-04	1.972784E-05	7.869117E-07	-1.530531E-05	-7.472640E-04	3.540768E-06
42330.	-6.461999E-04	1.969723E-05	7.610902E-07	-1.483574E-05	-7.633829E-04	3.531345E-06
42332.	-6.535089E-04	1.967433E-05	7.391879E-07	-1.439197E-05	-7.794702E-04	3.458382E-06
42334.	-6.600372E-04	1.963961E-05	7.169279E-07	-1.395051E-05	-7.956935E-04	3.502301E-06
42336.	-6.658868E-04	1.961459E-05	6.918220E-07	-1.351118E-05	-8.120525E-04	3.468487E-06
42338.	-6.711866E-04	1.959494E-05	6.779024E-07	-1.306330E-05	-8.282694E-04	3.428519E-06
42340.	-6.755641E-04	1.956528E-05	6.566849E-07	-1.264052E-05	-8.447411E-04	3.462295E-06
42342.	-6.795654E-04	1.954742E-05	6.350022E-07	-1.220535E-05	-8.611294E-04	3.427458E-06
42344.	-6.827384E-04	1.953082E-05	6.261666E-07	-1.180146E-05	-8.775108E-04	3.399542E-06
42346.	-6.853501E-04	1.950765E-05	6.070171E-07	-1.140661E-05	-8.940859E-04	3.423134E-06
42348.	-6.875156E-04	1.949543E-05	5.905040E-07	-1.101962E-05	-9.105945E-04	3.389531E-06
42352.	-6.905834E-04	1.947068E-05	5.697248E-07	-1.025603E-05	-9.436582E-04	3.385556E-06
42356.	-6.921179E-04	1.946214E-05	5.591765E-07	-9.539354E-06	-9.766843E-04	3.344561E-06
42360.	-6.923058E-04	1.946346E-05	5.446244E-07	-8.887546E-06	-1.009881E-03	3.306474E-06
42364.	-6.915895E-04	1.946600E-05	5.397903E-07	-8.269339E-06	-1.043011E-03	3.326307E-06
42368.	-6.901339E-04	1.948758E-05	5.515358E-07	-7.697227E-06	-1.076055E-03	3.305760E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42372.	-6.881071E-04	1.953008E-05	5.612675E-07	-7.167186E-06	-1.109173E-03	3.266995E-06
42376.	-6.857349E-04	1.957592E-05	5.750583E-07	-6.674676E-06	-1.142137E-03	3.276660E-06
42380.	-6.830703E-04	1.963808E-05	6.073061E-07	-6.216335E-06	-1.174945E-03	3.264252E-06
42384.	-6.801791E-04	1.972800E-05	6.414265E-07	-5.788095E-06	-1.207748E-03	3.226311E-06
42388.	-6.771612E-04	1.982690E-05	6.736358E-07	-5.386926E-06	-1.240364E-03	3.227813E-06
42392.	-6.739977E-04	1.993821E-05	7.220429E-07	-5.010232E-06	-1.272805E-03	3.220528E-06
42396.	-6.707202E-04	2.008035E-05	7.766082E-07	-4.656313E-06	-1.305208E-03	3.185481E-06
42400.	-6.673848E-04	2.023845E-05	8.244881E-07	-4.324671E-06	-1.337422E-03	3.181134E-06
42404.	-6.639987E-04	2.040524E-05	8.825366E-07	-4.014058E-06	-1.369461E-03	3.177797E-06
42408.	-6.606447E-04	2.060146E-05	9.500597E-07	-3.724585E-06	-1.401435E-03	3.147994E-06
42420.	-6.517625E-04	2.129386E-05	1.140592E-06	-2.978212E-06	-1.496304E-03	3.117899E-06
42424.	-6.496472E-04	2.156900E-05	1.203955E-06	-2.764771E-06	-1.527584E-03	3.112507E-06
42428.	-6.482091E-04	2.184955E-05	1.261145E-06	-2.562738E-06	-1.558649E-03	3.115066E-06
42432.	-6.476199E-04	2.214477E-05	1.328777E-06	-2.367180E-06	-1.589584E-03	3.099535E-06
42436.	-6.479990E-04	2.246483E-05	1.392533E-06	-2.171066E-06	-1.620291E-03	3.101050E-06
42440.	-6.494368E-04	2.278906E-05	1.444088E-06	-1.964994E-06	-1.650775E-03	3.106791E-06
42444.	-6.519875E-04	2.311608E-05	1.501627E-06	-1.739458E-06	-1.681126E-03	3.091460E-06
42448.	-6.556139E-04	2.346336E-05	1.557213E-06	-1.484120E-06	-1.711261E-03	3.097913E-06
42452.	-6.601960E-04	2.381877E-05	1.594701E-06	-1.186611E-06	-1.741202E-03	3.107871E-06
42456.	-6.655613E-04	2.417201E-05	1.630145E-06	-8.363299E-07	-1.771064E-03	3.084067E-06
42460.	-6.714122E-04	2.454188E-05	1.666162E-06	-4.239108E-07	-1.800795E-03	3.088044E-06
42464.	-6.773806E-04	2.492560E-05	1.684329E-06	6.166054E-08	-1.830452E-03	3.107703E-06
42468.	-6.830592E-04	2.530596E-05	1.693843E-06	6.258889E-07	-1.860148E-03	3.073936E-06
42472.	-6.878834E-04	2.569666E-05	1.706621E-06	1.271453E-06	-1.889956E-03	3.063766E-06
42476.	-6.913635E-04	2.610473E-05	1.706184E-06	2.003099E-06	-1.919891E-03	3.096200E-06
42480.	-6.929645E-04	2.651159E-05	1.692548E-06	2.816546E-06	-1.950028E-03	3.060091E-06
42484.	-6.919619E-04	2.692412E-05	1.682689E-06	3.704550E-06	-1.980049E-03	3.023495E-06
42488.	-6.880535E-04	2.735280E-05	1.666628E-06	4.661795E-06	-2.010893E-03	3.064091E-06
42492.	-6.806742E-04	2.778432E-05	1.636479E-06	5.672785E-06	-2.042159E-03	3.039276E-06
42496.	-6.693902E-04	2.821198E-05	1.609820E-06	6.716449E-06	-2.073903E-03	2.945340E-06
42500.	-6.549203E-04	2.862588E-05	1.659482E-06	7.726689E-06	-2.105334E-03	2.891269E-06
42504.	-6.369996E-04	2.905929E-05	1.741456E-06	8.694062E-06	-2.135997E-03	2.759626E-06
42508.	-6.155048E-04	2.952742E-05	1.843222E-06	9.617358E-06	-2.165630E-03	2.522784E-06
42512.	-5.906671E-04	3.005334E-05	1.963310E-06	1.048129E-05	-2.194069E-03	2.382301E-06
42516.	-5.625622E-04	3.064086E-05	2.085431E-06	1.127053E-05	-2.221309E-03	2.256094E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42520.	-5.314773E-04	3.128356E-05	2.208643E-06	1.197410E-05	-2.247335E-03	2.034118E-06
42528.	-4.848640E-04	3.283504E-05	2.281906E-06	1.276071E-05	-2.293841E-03	1.966209E-06
42532.	-4.845834E-04	3.364717E-05	2.288403E-06	1.274005E-05	-2.313215E-03	1.946777E-06
42536.	-4.859686E-04	3.446289E-05	2.289877E-06	1.271011E-05	-2.332170E-03	1.930550E-06
42540.	-4.866758E-04	3.527748E-05	2.293441E-06	1.269278E-05	-2.351073E-03	1.917709E-06
42544.	-4.866539E-04	3.609114E-05	2.298819E-06	1.267890E-05	-2.369958E-03	1.907246E-06
42548.	-4.883183E-04	3.690765E-05	2.299560E-06	1.267396E-05	-2.388499E-03	1.896674E-06
42552.	-4.892050E-04	3.772334E-05	2.302258E-06	1.267486E-05	-2.407090E-03	1.893847E-06
42556.	-4.893353E-04	3.853840E-05	2.306570E-06	1.267133E-05	-2.425762E-03	1.894900E-06
42560.	-4.902489E-04	3.935480E-05	2.308614E-06	1.268163E-05	-2.444323E-03	1.895135E-06
42564.	-4.918137E-04	4.017234E-05	2.308711E-06	1.271587E-05	-2.462830E-03	1.899924E-06
42568.	-4.919840E-04	4.098865E-05	2.312097E-06	1.272508E-05	-2.481580E-03	1.913895E-06
42572.	-4.926733E-04	4.180597E-05	2.313448E-06	1.275521E-05	-2.500434E-03	1.925488E-06
42576.	-4.937894E-04	4.262414E-05	2.313165E-06	1.281559E-05	-2.519340E-03	1.937302E-06
42580.	-4.897781E-04	4.343653E-05	2.329598E-06	1.259672E-05	-2.539155E-03	2.015427E-06
42584.	-4.721236E-04	4.422812E-05	2.397985E-06	1.136840E-05	-2.562901E-03	2.295922E-06
42588.	-4.589908E-04	4.501480E-05	2.461602E-06	1.007102E-05	-2.589005E-03	2.543964E-06
42592.	-4.504888E-04	4.579611E-05	2.520413E-06	8.730723E-06	-2.617605E-03	2.964041E-06
42596.	-4.470171E-04	4.656643E-05	2.572627E-06	7.375100E-06	-2.648749E-03	3.306598E-06
42600.	-4.487014E-04	4.732341E-05	2.619024E-06	6.007644E-06	-2.682405E-03	3.549994E-06
42604.	-4.554578E-04	4.806705E-05	2.660271E-06	4.659334E-06	-2.718569E-03	3.934807E-06
42608.	-4.674642E-04	4.879505E-05	2.694384E-06	3.356417E-06	-2.757139E-03	4.294189E-06
42612.	-4.845898E-04	4.950572E-05	2.721721E-06	2.113938E-06	-2.797988E-03	4.524555E-06
42616.	-5.065988E-04	5.019942E-05	2.742501E-06	9.577881E-07	-2.840958E-03	4.804610E-06
42620.	-5.332405E-04	5.087607E-05	2.755566E-06	-9.054617E-08	-2.885878E-03	5.131846E-06
42624.	-5.640170E-04	5.153519E-05	2.760810E-06	-1.008094E-06	-2.932453E-03	5.315604E-06
42628.	-5.986669E-04	5.217795E-05	2.757858E-06	-1.776929E-06	-2.980451E-03	5.442447E-06
42632.	-6.364281E-04	5.280473E-05	2.746271E-06	-2.383457E-06	-3.029632E-03	5.682165E-06
42636.	-6.763067E-04	5.341661E-05	2.725966E-06	-2.805341E-06	-3.079638E-03	5.782133E-06
42640.	-7.181526E-04	5.401548E-05	2.696391E-06	-3.036883E-06	-3.130150E-03	5.742930E-06
42648.	-8.028770E-04	5.517488E-05	2.608392E-06	-2.906761E-06	-3.231508E-03	5.811946E-06
42652.	-8.441445E-04	5.573946E-05	2.550296E-06	-2.540377E-06	-3.281720E-03	5.651723E-06
42656.	-8.832811E-04	5.629377E-05	2.481140E-06	-1.982923E-06	-3.331251E-03	5.528319E-06
42660.	-9.194994E-04	5.683756E-05	2.403538E-06	-1.243994E-06	-3.379739E-03	5.429488E-06
42664.	-9.518265E-04	5.737376E-05	2.317030E-06	-3.418937E-07	-3.426946E-03	5.180616E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42668.	-9.794790E-04	5.790120E-05	2.219647E-06	7.082447E-07	-3.472704E-03	4.884905E-06
42672.	-1.002456E-03	5.841542E-05	2.112736E-06	1.902005E-06	-3.516611E-03	4.699326E-06
42676.	-1.018893E-03	5.891985E-05	2.000668E-06	3.157409E-06	-3.558680E-03	4.396340E-06
42680.	-1.029059E-03	5.941378E-05	1.880048E-06	4.485197E-06	-3.598719E-03	3.992655E-06
42684.	-1.032740E-03	5.988877E-05	1.752334E-06	5.842525E-06	-3.636620E-03	3.731666E-06
42688.	-1.029674E-03	6.034689E-05	1.621374E-06	7.194534E-06	-3.672408E-03	3.442349E-06
42692.	-1.020060E-03	6.078744E-05	1.485090E-06	8.517171E-06	-3.706063E-03	3.054443E-06
42696.	-1.004148E-03	6.120088E-05	1.343123E-06	9.773671E-06	-3.737679E-03	2.756575E-06
42700.	-9.823631E-04	6.158491E-05	1.202470E-06	1.093643E-05	-3.767385E-03	2.550985E-06
42704.	-9.553627E-04	6.194079E-05	1.060404E-06	1.197516E-05	-3.795335E-03	2.267886E-06
42708.	-9.236234E-04	6.226061E-05	9.153213E-07	1.286916E-05	-3.821771E-03	2.001031E-06
42712.	-8.881435E-04	6.253615E-05	7.751000E-07	1.360085E-05	-3.846930E-03	1.924264E-06
42716.	-8.500659E-04	6.277156E-05	6.369868E-07	1.414564E-05	-3.871091E-03	1.800801E-06
42720.	-8.097358E-04	6.296248E-05	4.995078E-07	1.450171E-05	-3.894641E-03	1.637720E-06
42724.	-7.685512E-04	6.309675E-05	3.670347E-07	1.466294E-05	-3.917814E-03	1.662210E-06
42728.	-7.274845E-04	6.318001E-05	2.418637E-07	1.462354E-05	-3.940927E-03	1.715286E-06
42732.	-6.872203E-04	6.321079E-05	1.187053E-07	1.439098E-05	-3.964320E-03	1.708888E-06
42736.	-6.487987E-04	6.317799E-05	-1.193189E-09	1.397346E-05	-3.988268E-03	1.812372E-06
42740.	-6.128925E-04	6.308446E-05	-1.108756E-07	1.338205E-05	-4.013089E-03	2.029091E-06
42752.	-5.776306E-04	6.278288E-05	-2.400879E-07	1.260632E-05	-4.084841E-03	2.300523E-06
42756.	-5.531788E-04	6.270542E-05	-2.058324E-07	1.125613E-05	-4.111604E-03	2.339794E-06
42760.	-5.341060E-04	6.262188E-05	-1.728282E-07	9.775157E-06	-4.137890E-03	2.288365E-06
42786.	-5.587361E-04	6.171634E-05	6.682209E-10	1.020993E-07	-4.294524E-03	2.626119E-06
42790.	-5.816938E-04	6.153052E-05	1.529476E-08	-1.109478E-06	-4.316778E-03	2.621432E-06
42794.	-6.084155E-04	6.132498E-05	1.911723E-08	-2.192367E-06	-4.338745E-03	2.593651E-06
42798.	-6.388061E-04	6.110170E-05	2.701692E-08	-3.159876E-06	-4.360429E-03	2.699778E-06
42802.	-6.703950E-04	6.083630E-05	4.396307E-09	-3.942257E-06	-4.381984E-03	2.735108E-06
42806.	-7.000272E-04	6.041062E-05	-1.038803E-07	-4.493649E-06	-4.404804E-03	2.779744E-06
42810.	-7.303273E-04	5.993570E-05	-2.064749E-07	-4.928816E-06	-4.428607E-03	2.903187E-06
42814.	-7.618280E-04	5.943396E-05	-3.047721E-07	-5.205328E-06	-4.452746E-03	2.989159E-06
42818.	-7.935195E-04	5.891308E-05	-4.062632E-07	-5.344685E-06	-4.477278E-03	2.949270E-06
42822.	-8.247654E-04	5.837578E-05	-4.972628E-07	-5.345732E-06	-4.501956E-03	2.944781E-06
42826.	-8.556628E-04	5.787745E-05	-5.529606E-07	-5.207467E-06	-4.526600E-03	2.986748E-06
42830.	-8.849069E-04	5.742380E-05	-5.960942E-07	-4.937576E-06	-4.551366E-03	2.947472E-06
42834.	-9.108346E-04	5.695357E-05	-6.485699E-07	-4.556970E-06	-4.576753E-03	2.912134E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42838.	-9.331485E-04	5.647624E-05	-6.952824E-07	-4.088409E-06	-4.602569E-03	2.949230E-06
42850.	-9.748210E-04	5.501940E-05	-8.720509E-07	-2.387346E-06	-4.683533E-03	2.901618E-06
42854.	-9.799801E-04	5.452556E-05	-9.291113E-07	-1.806171E-06	-4.711675E-03	2.913558E-06
42858.	-9.809755E-04	5.402268E-05	-9.972224E-07	-1.260992E-06	-4.740523E-03	2.879533E-06
42862.	-9.780722E-04	5.350193E-05	-1.059952E-06	-7.751336E-07	-4.769859E-03	2.864619E-06
42866.	-9.717292E-04	5.298113E-05	-1.112924E-06	-3.675305E-07	-4.799687E-03	2.883628E-06
42870.	-9.624986E-04	5.245605E-05	-1.172757E-06	-5.830991E-08	-4.829939E-03	2.878069E-06
42874.	-9.509921E-04	5.191051E-05	-1.229022E-06	1.390196E-07	-4.860536E-03	2.855162E-06
42878.	-9.379885E-04	5.135891E-05	-1.269161E-06	2.145015E-07	-4.891378E-03	2.865147E-06
42882.	-9.241945E-04	5.080712E-05	-1.309922E-06	1.609636E-07	-4.922379E-03	2.888513E-06
42886.	-9.104355E-04	5.023636E-05	-1.350446E-06	-2.140395E-08	-4.953429E-03	2.878944E-06
42890.	-8.975184E-04	4.965232E-05	-1.374159E-06	-3.310754E-07	-4.984422E-03	2.870818E-06
42894.	-8.861235E-04	4.906868E-05	-1.392760E-06	-7.597560E-07	-5.015270E-03	2.908757E-06
42898.	-8.770331E-04	4.846869E-05	-1.414328E-06	-1.296176E-06	-5.045869E-03	2.925862E-06
42902.	-8.708177E-04	4.784942E-05	-1.421870E-06	-1.927037E-06	-5.076139E-03	2.903793E-06
42906.	-8.679623E-04	4.722875E-05	-1.418798E-06	-2.632474E-06	-5.106012E-03	2.934872E-06
42910.	-8.689526E-04	4.659739E-05	-1.419397E-06	-3.395300E-06	-5.135422E-03	2.980241E-06
42914.	-8.739827E-04	4.594549E-05	-1.410882E-06	-4.193990E-06	-5.164339E-03	2.957388E-06
42918.	-8.832490E-04	4.529036E-05	-1.388212E-06	-5.004643E-06	-5.192728E-03	2.963605E-06
42922.	-8.967830E-04	4.463267E-05	-1.367617E-06	-5.809332E-06	-5.220663E-03	3.026545E-06
42926.	-9.144823E-04	4.395818E-05	-1.344217E-06	-6.585302E-06	-5.247916E-03	3.018528E-06
42930.	-9.362543E-04	4.327764E-05	-1.306784E-06	-7.313531E-06	-5.274722E-03	2.974941E-06
42934.	-9.606378E-04	4.263382E-05	-1.210136E-06	-7.947326E-06	-5.301266E-03	3.073629E-06
42938.	-9.872813E-04	4.202435E-05	-1.071998E-06	-8.480223E-06	-5.327881E-03	3.151553E-06
42942.	-1.016044E-03	4.145567E-05	-9.019324E-07	-8.914758E-06	-5.354915E-03	3.161500E-06
42946.	-1.046394E-03	4.094670E-05	-7.140438E-07	-9.246717E-06	-5.382396E-03	3.251615E-06
42950.	-1.078060E-03	4.049027E-05	-5.199952E-07	-9.468552E-06	-5.409955E-03	3.329261E-06
42954.	-1.110677E-03	4.008621E-05	-3.132818E-07	-9.580933E-06	-5.437752E-03	3.292471E-06
42958.	-1.143706E-03	3.975223E-05	-9.582251E-08	-9.580406E-06	-5.465565E-03	3.295555E-06
42962.	-1.176939E-03	3.948650E-05	1.193842E-07	-9.465346E-06	-5.493205E-03	3.328664E-06
42966.	-1.209832E-03	3.928212E-05	3.389594E-07	-9.236310E-06	-5.520092E-03	3.237403E-06
42970.	-1.248143E-03	3.909906E-05	4.223359E-07	-8.830031E-06	-5.546303E-03	3.265799E-06
42974.	-1.285588E-03	3.892100E-05	4.724430E-07	-8.293036E-06	-5.572516E-03	3.261370E-06
42978.	-1.322214E-03	3.875751E-05	5.163979E-07	-7.618405E-06	-5.598700E-03	3.233379E-06
42982.	-1.357597E-03	3.861707E-05	5.663373E-07	-6.804087E-06	-5.625154E-03	3.240626E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42986.	-1.391371E-03	3.849462E-05	6.091227E-07	-5.856614E-06	-5.651663E-03	3.226996E-06
42990.	-1.423040E-03	3.839258E-05	6.447105E-07	-4.777567E-06	-5.678272E-03	3.212210E-06
42994.	-1.451720E-03	3.831406E-05	6.833091E-07	-3.587281E-06	-5.705326E-03	3.189712E-06
42998.	-1.477565E-03	3.825802E-05	7.142825E-07	-2.279622E-06	-5.732561E-03	3.167988E-06
43002.	-1.499868E-03	3.822317E-05	7.375472E-07	-8.801773E-07	-5.760060E-03	3.081069E-06
43006.	-1.518782E-03	3.821831E-05	7.629611E-07	6.446198E-07	-5.787985E-03	3.116489E-06
43010.	-1.533139E-03	3.823615E-05	7.805921E-07	2.207043E-06	-5.816303E-03	3.087453E-06
43014.	-1.543201E-03	3.827772E-05	7.911307E-07	3.821995E-06	-5.845023E-03	3.007959E-06
43018.	-1.548951E-03	3.834618E-05	8.009705E-07	5.547227E-06	-5.874075E-03	2.983323E-06
43022.	-1.549749E-03	3.844175E-05	8.101507E-07	7.297977E-06	-5.903700E-03	2.992764E-06
43026.	-1.546596E-03	3.858718E-05	9.232706E-07	8.646337E-06	-5.932013E-03	2.671862E-06
43030.	-1.539569E-03	3.880046E-05	1.024840E-06	9.988894E-06	-5.957594E-03	2.320683E-06
43034.	-1.528493E-03	3.907732E-05	1.113999E-06	1.132187E-05	-5.980586E-03	1.914840E-06
43038.	-1.513624E-03	3.941660E-05	1.188635E-06	1.262910E-05	-6.000886E-03	1.685092E-06
43042.	-1.495011E-03	3.980905E-05	1.248416E-06	1.388390E-05	-6.018581E-03	1.376729E-06
43046.	-1.472521E-03	4.024997E-05	1.294484E-06	1.509163E-05	-6.033854E-03	9.780195E-07
43050.	-1.446594E-03	4.073559E-05	1.327008E-06	1.623147E-05	-6.046717E-03	7.541057E-07
43054.	-1.417372E-03	4.125800E-05	1.345277E-06	1.728506E-05	-6.057346E-03	5.213790E-07
43058.	-1.384992E-03	4.181114E-05	1.350370E-06	1.824923E-05	-6.065952E-03	2.004945E-07
43062.	-1.349846E-03	4.238844E-05	1.342328E-06	1.911139E-05	-6.072707E-03	-2.527630E-09
43066.	-1.312234E-03	4.298256E-05	1.321893E-06	1.986112E-05	-6.077832E-03	-1.280967E-07
43070.	-1.272532E-03	4.358761E-05	1.289683E-06	2.049138E-05	-6.081529E-03	-3.426309E-07
43074.	-1.230976E-03	4.419640E-05	1.245016E-06	2.099442E-05	-6.084045E-03	-5.135774E-07
43078.	-1.188050E-03	4.480007E-05	1.189861E-06	2.136892E-05	-6.085613E-03	-5.270023E-07
43082.	-1.144435E-03	4.539451E-05	1.124828E-06	2.160578E-05	-6.086438E-03	-6.189625E-07
43086.	-1.100047E-03	4.597317E-05	1.048898E-06	2.170265E-05	-6.086847E-03	-7.359830E-07
43090.	-1.055570E-03	4.652478E-05	9.632784E-07	2.166399E-05	-6.087063E-03	-6.460607E-07
43094.	-1.011867E-03	4.704737E-05	8.698470E-07	2.148527E-05	-6.087280E-03	-6.141710E-07
43098.	-9.686784E-04	4.753583E-05	7.678675E-07	2.116555E-05	-6.087856E-03	-6.516755E-07
43102.	-9.268471E-04	4.797806E-05	6.555961E-07	2.071455E-05	-6.088977E-03	-4.971886E-07
43106.	-8.870146E-04	4.837147E-05	5.378462E-07	2.013215E-05	-6.090860E-03	-3.418096E-07
43110.	-8.492942E-04	4.871370E-05	4.130625E-07	1.942257E-05	-6.093779E-03	-2.705435E-07
43114.	-8.143214E-04	4.899429E-05	2.774988E-07	1.859676E-05	-6.097915E-03	-7.524664E-08
43118.	-7.825802E-04	4.920733E-05	1.372414E-07	1.766103E-05	-6.103442E-03	1.924834E-07
43147.	-6.826364E-04	4.841189E-05	-1.094989E-06	8.797750E-06	-6.199579E-03	2.192106E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43151.	-6.897282E-04	4.793447E-05	-1.291728E-06	7.513144E-06	-6.221537E-03	2.448657E-06
43155.	-7.020997E-04	4.736257E-05	-1.499292E-06	6.273759E-06	-6.245556E-03	2.683001E-06
43159.	-7.193750E-04	4.668585E-05	-1.713103E-06	5.101523E-06	-6.271590E-03	3.032752E-06
43163.	-7.411962E-04	4.591458E-05	-1.930004E-06	4.026800E-06	-6.299493E-03	3.278886E-06
43167.	-7.673635E-04	4.505030E-05	-2.154577E-06	3.057943E-06	-6.329086E-03	3.423548E-06
43171.	-7.970532E-04	4.408171E-05	-2.387859E-06	2.217890E-06	-6.360241E-03	3.670037E-06
43175.	-8.297495E-04	4.301711E-05	-2.620513E-06	1.526570E-06	-6.392682E-03	3.863022E-06
43179.	-8.648157E-04	4.186526E-05	-2.856942E-06	9.913840E-07	-6.426205E-03	3.917206E-06
43183.	-9.012989E-04	4.061768E-05	-3.101626E-06	6.247340E-07	-6.460590E-03	4.010817E-06
43187.	-9.385625E-04	3.927731E-05	-3.341347E-06	4.319716E-07	-6.495516E-03	4.116393E-06
43191.	-9.796075E-04	3.787050E-05	-3.465152E-06	4.144632E-07	-6.530106E-03	4.077270E-06
43195.	-1.020892E-03	3.644066E-05	-3.528019E-06	5.975198E-07	-6.564661E-03	4.106085E-06
43199.	-1.059062E-03	3.500543E-05	-3.585005E-06	9.633653E-07	-6.599582E-03	4.092145E-06
43203.	-1.093923E-03	3.356665E-05	-3.636831E-06	1.500574E-06	-6.634868E-03	4.061849E-06
43207.	-1.124793E-03	3.212145E-05	-3.696713E-06	2.195778E-06	-6.670640E-03	4.055378E-06
43211.	-1.150886E-03	3.067664E-05	-3.749678E-06	3.016463E-06	-6.706990E-03	4.036292E-06
43215.	-1.171151E-03	2.923292E-05	-3.795990E-06	3.916707E-06	-6.744080E-03	4.019749E-06
43219.	-1.185935E-03	2.779255E-05	-3.853460E-06	4.898048E-06	-6.781808E-03	3.948681E-06
43223.	-1.194849E-03	2.635547E-05	-3.895983E-06	5.909264E-06	-6.820051E-03	3.914537E-06
43227.	-1.197765E-03	2.492108E-05	-3.928931E-06	6.902839E-06	-6.858994E-03	3.915445E-06
43231.	-1.195044E-03	2.350030E-05	-3.956378E-06	7.865145E-06	-6.898602E-03	3.867871E-06
43235.	-1.186897E-03	2.207836E-05	-3.987476E-06	8.764797E-06	-6.938826E-03	3.823562E-06
43239.	-1.173947E-03	2.066334E-05	-4.002814E-06	9.568013E-06	-6.979628E-03	3.830328E-06
43243.	-1.156610E-03	1.926169E-05	-4.008216E-06	1.025637E-05	-7.020981E-03	3.830200E-06
43247.	-1.135177E-03	1.786839E-05	-4.016369E-06	1.081906E-05	-7.062843E-03	3.773846E-06
43251.	-1.110873E-03	1.647191E-05	-4.015020E-06	1.122417E-05	-7.105129E-03	3.779871E-06
43255.	-1.084406E-03	1.508735E-05	-3.999112E-06	1.145974E-05	-7.147741E-03	3.824359E-06
43259.	-1.056756E-03	1.371328E-05	-3.984698E-06	1.152034E-05	-7.190549E-03	3.792808E-06
43263.	-1.028822E-03	1.233350E-05	-3.966849E-06	1.140005E-05	-7.233434E-03	3.767979E-06
43267.	-1.001381E-03	1.095766E-05	-3.934003E-06	1.110483E-05	-7.276306E-03	3.829773E-06
43271.	-9.754124E-04	9.592165E-06	-3.900415E-06	1.063983E-05	-7.319040E-03	3.840637E-06
43275.	-9.516436E-04	8.220406E-06	-3.869029E-06	1.001482E-05	-7.361539E-03	3.798602E-06
43279.	-9.308322E-04	6.844246E-06	-3.825445E-06	9.249309E-06	-7.403710E-03	3.850222E-06
43283.	-9.135735E-04	5.478549E-06	-3.781552E-06	8.349387E-06	-7.445433E-03	3.865766E-06
43287.	-9.013555E-04	4.036839E-06	-3.735401E-06	7.395914E-06	-7.486476E-03	3.897212E-06

GEOS-B EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43291.	-8.939998E-04	2.546844E-06	-3.674877E-06	6.397894E-06	-7.527863E-03	4.030957E-06
43295.	-8.914501E-04	1.040716E-06	-3.601096E-06	5.368369E-06	-7.570006E-03	4.256916E-06
43299.	-8.936836E-04	-4.803888E-07	-3.527368E-06	4.332986E-06	-7.613126E-03	4.413613E-06
43303.	-9.007658E-04	-2.016130E-06	-3.446563E-06	3.311225E-06	-7.657415E-03	4.572534E-06
43307.	-9.124322E-04	-3.550829E-06	-3.352607E-06	2.323570E-06	-7.703017E-03	4.837402E-06
43311.	-9.285657E-04	-5.080442E-06	-3.259133E-06	1.395873E-06	-7.749867E-03	5.045212E-06

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
42911.	-4.959987E-07	9.593983E-10	2.613795E-10	-5.006305E-09	8.144691E-08	4.664268E-08
42915.	-2.401522E-05	3.542774E-09	8.515906E-09	-2.074618E-07	3.762011E-06	4.724963E-08
42919.	-4.999935E-05	5.461602E-09	1.661783E-08	-4.190524E-07	7.829775E-06	-2.256969E-09
42923.	-7.713584E-05	9.571641E-09	2.204246E-08	-6.283562E-07	1.207857E-05	4.751228E-08
42927.	-1.065320E-04	1.094487E-08	2.374360E-08	-8.435616E-07	1.662539E-05	2.319751E-08
42931.	-1.352804E-04	1.356862E-08	2.323140E-08	-1.044469E-06	2.106123E-05	6.103539E-08
42935.	-1.639624E-04	1.459415E-08	2.506662E-08	-1.236357E-06	2.549212E-05	3.092794E-08
42939.	-1.924958E-04	1.650109E-08	2.415367E-08	-1.419496E-06	2.989968E-05	4.761003E-08
42943.	-2.206031E-04	1.832518E-08	2.635799E-08	-1.593331E-06	3.424614E-05	4.081739E-08
42947.	-2.482128E-04	1.926381E-08	2.547311E-08	-1.758164E-06	3.851321E-05	3.395254E-08
42951.	-2.750306E-04	2.200325E-08	2.754764E-08	-1.913655E-06	4.266123E-05	4.870470E-08
42955.	-3.009378E-04	2.204725E-08	2.723232E-08	-2.060158E-06	4.666503E-05	2.387310E-08
42959.	-3.257259E-04	2.547601E-08	2.865267E-08	-2.197646E-06	5.049584E-05	5.175240E-08
42967.	-3.712911E-04	2.860802E-08	2.976715E-08	-2.446493E-06	5.752666E-05	4.895221E-08
42971.	-3.917288E-04	2.824411E-08	3.160930E-08	-2.558170E-06	6.067567E-05	2.077524E-08
42979.	-4.272646E-04	3.173201E-08	3.389723E-08	-2.757517E-06	6.613183E-05	2.546679E-08
42983.	-4.420764E-04	3.380314E-08	3.278671E-08	-2.845709E-06	6.839239E-05	3.212575E-08
42987.	-4.547322E-04	3.530753E-08	3.602861E-08	-2.926476E-06	7.031677E-05	3.044707E-08
42991.	-4.651214E-04	3.602720E-08	3.493264E-08	-3.000358E-06	7.187964E-05	2.427166E-08
42995.	-4.730958E-04	3.869012E-08	3.792233E-08	-3.067533E-06	7.306498E-05	3.273953E-08
42999.	-4.785776E-04	3.814959E-08	3.750597E-08	-3.128489E-06	7.385434E-05	2.036553E-08
43003.	-4.814580E-04	4.156185E-08	3.954559E-08	-3.183613E-06	7.423122E-05	3.097832E-08
43007.	-4.816580E-04	4.019951E-08	4.021241E-08	-3.233276E-06	7.418697E-05	2.100888E-08
43011.	-4.790996E-04	4.365209E-08	4.089000E-08	-3.277966E-06	7.370251E-05	2.582008E-08
43015.	-4.737390E-04	4.225522E-08	4.262920E-08	-3.317997E-06	7.277739E-05	2.475836E-08
43019.	-4.654961E-04	4.512582E-08	4.194000E-08	-3.353841E-06	7.139122E-05	1.973140E-08
43023.	-4.543573E-04	4.458067E-08	4.450158E-08	-3.385805E-06	6.954883E-05	2.872026E-08
43027.	-4.402636E-04	4.641007E-08	4.296496E-08	-3.414339E-06	6.723355E-05	1.568201E-08
43031.	-4.232064E-04	4.725309E-08	4.584783E-08	-3.439789E-06	6.444886E-05	2.976671E-08
43035.	-4.031659E-04	4.782418E-08	4.419200E-08	-3.462593E-06	6.119053E-05	1.595279E-08
43039.	-3.801243E-04	5.006014E-08	4.672804E-08	-3.483081E-06	5.745450E-05	2.614662E-08
43043.	-3.541154E-04	4.958691E-08	4.565009E-08	-3.501667E-06	5.324963E-05	2.092203E-08
43047.	-3.251018E-04	5.283256E-08	4.727933E-08	-3.518698E-06	4.856292E-05	1.835107E-08
43051.	-2.932103E-04	5.188814E-08	4.724007E-08	-3.534450E-06	4.342361E-05	2.860650E-08
43055.	-2.584133E-04	5.545319E-08	4.769605E-08	-3.549265E-06	3.781840E-05	9.117226E-09

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43059.	-2.207997E-04	5.473303E-08	4.878087E-08	-3.563743E-06	3.177711E-05	3.553615E-08
43063.	-1.804473E-04	5.792651E-08	4.818328E-08	-3.577404E-06	2.529034E-05	2.377323E-09
43067.	-1.374422E-04	5.803352E-08	5.010321E-08	-3.590582E-06	1.838426E-05	3.790201E-08
43071.	-9.180885E-05	6.036308E-08	4.887825E-08	-3.603733E-06	1.106182E-05	1.566355E-09
43075.	-4.360606E-05	6.158368E-08	5.108697E-08	-3.616752E-06	3.330621E-06	3.326477E-08
43079.	7.019554E-06	6.293599E-08	4.981737E-08	-3.629979E-06	-4.782791E-06	8.000685E-09
43083.	5.998078E-05	6.519618E-08	5.174128E-08	-3.643459E-06	-1.326872E-05	2.183680E-08
43087.	1.150783E-04	6.579161E-08	5.092045E-08	-3.657351E-06	-2.208847E-05	1.977476E-08
43091.	1.723215E-04	6.871690E-08	5.215848E-08	-3.671753E-06	-3.125441E-05	6.691587E-09
43095.	2.314060E-04	6.901948E-08	5.204816E-08	-3.686345E-06	-4.070520E-05	3.236528E-08
43099.	2.908771E-04	7.189709E-08	5.093903E-08	-3.701314E-06	-5.018103E-05	-3.997996E-08
43103.	3.503798E-04	6.806461E-08	4.626770E-08	-3.715743E-06	-5.958438E-05	5.190820E-09
43107.	4.099522E-04	6.482506E-08	3.904614E-08	-3.729952E-06	-6.899407E-05	-5.091738E-08
43111.	4.698092E-04	5.910640E-08	3.237891E-08	-3.743541E-06	-7.843978E-05	1.315676E-09
43115.	5.302056E-04	5.442887E-08	2.445460E-08	-3.756922E-06	-8.796410E-05	-5.047460E-08
43119.	5.907882E-04	4.883788E-08	1.804846E-08	-3.769589E-06	-9.751423E-05	-9.597338E-09
43123.	6.519805E-04	4.375972E-08	1.107866E-08	-3.781582E-06	-1.071538E-04	-4.023060E-08
43127.	7.132108E-04	3.897815E-08	5.821673E-09	-3.792817E-06	-1.167981E-04	-2.800627E-08
43131.	7.749680E-04	3.430115E-08	8.138408E-10	-3.803019E-06	-1.265163E-04	-2.492355E-08
43135.	8.366221E-04	3.050616E-08	-2.708327E-09	-3.812050E-06	-1.362227E-04	-4.775074E-08
43139.	8.985802E-04	2.685574E-08	-5.266051E-09	-3.819574E-06	-1.459664E-04	-1.113142E-08
43148.	1.037251E-03	2.126696E-08	-6.385994E-09	-3.829152E-06	-1.677569E-04	-5.529452E-08
43152.	1.098902E-03	1.989744E-08	-4.805164E-09	-3.829803E-06	-1.774439E-04	-9.900924E-09
43156.	1.160080E-03	1.879155E-08	-1.921618E-09	-3.828012E-06	-1.870609E-04	-6.607811E-08
43160.	1.221117E-03	1.883824E-08	2.069736E-09	-3.822825E-06	-1.966504E-04	-1.062174E-08
43164.	1.281852E-03	1.875831E-08	7.478361E-09	-3.814736E-06	-2.061908E-04	-6.565475E-08
43168.	1.342021E-03	2.000803E-08	1.348144E-08	-3.802768E-06	-2.156413E-04	-1.397577E-08
43172.	1.402023E-03	2.095661E-08	2.107454E-08	-3.787060E-06	-2.250630E-04	-5.442953E-08
43176.	1.461277E-03	2.286718E-08	2.847221E-08	-3.767283E-06	-2.343682E-04	-2.939211E-08
43180.	1.520200E-03	2.496780E-08	3.761726E-08	-3.743039E-06	-2.436144E-04	-3.707250E-08
43184.	1.578375E-03	2.703061E-08	4.577106E-08	-3.714414E-06	-2.527525E-04	-4.698672E-08
43188.	1.636080E-03	3.019955E-08	5.523673E-08	-3.680668E-06	-2.618068E-04	-2.059717E-08
43192.	1.692998E-03	3.208659E-08	6.323276E-08	-3.641735E-06	-2.707471E-04	-5.970464E-08
43196.	1.749351E-03	3.605164E-08	7.114031E-08	-3.596822E-06	-2.795911E-04	-1.083469E-08
43200.	1.805096E-03	3.775822E-08	7.705832E-08	-3.545807E-06	-2.883497E-04	-6.191067E-08

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43203.	1.846111E-03	4.138258E-08	7.894262E-08	-3.502766E-06	-2.947964E-04	-1.058053E-08
43207.	1.901607E-03	4.501366E-08	7.731244E-08	-3.438353E-06	-3.036370E-04	6.967196E-09
43211.	1.955369E-03	4.783798E-08	7.819032E-08	-3.368189E-06	-3.121980E-04	5.841987E-09
43215.	2.007383E-03	5.061490E-08	7.629977E-08	-3.292013E-06	-3.204843E-04	-8.398964E-09
43219.	2.057500E-03	5.417377E-08	7.713535E-08	-3.209870E-06	-3.284631E-04	1.979334E-08
43223.	2.105749E-03	5.604840E-08	7.542178E-08	-3.121542E-06	-3.361550E-04	-1.801063E-08
43227.	2.151974E-03	6.024841E-08	7.574939E-08	-3.027136E-06	-3.435171E-04	2.612564E-08
43231.	2.196272E-03	6.146642E-08	7.463943E-08	-2.926596E-06	-3.505820E-04	-1.792497E-08
43235.	2.238548E-03	6.595209E-08	7.410896E-08	-2.819806E-06	-3.573230E-04	2.298411E-08
43239.	2.278825E-03	6.697987E-08	7.383994E-08	-2.707154E-06	-3.637464E-04	-8.442320E-09
43243.	2.317118E-03	7.123522E-08	7.236952E-08	-2.588546E-06	-3.698577E-04	1.256435E-08
43247.	2.353361E-03	7.262578E-08	7.287368E-08	-2.464294E-06	-3.756423E-04	6.449671E-09
43251.	2.387546E-03	7.615578E-08	7.066299E-08	-2.334408E-06	-3.811041E-04	-8.372871E-11
43255.	2.419607E-03	7.833386E-08	7.161132E-08	-2.199278E-06	-3.862238E-04	2.050127E-08
43259.	2.449613E-03	8.086080E-08	6.909688E-08	-2.058715E-06	-3.910279E-04	-8.996800E-09
43263.	2.477447E-03	8.401703E-08	6.997798E-08	-1.913135E-06	-3.954799E-04	2.831827E-08
43267.	2.503210E-03	8.554921E-08	6.770727E-08	-1.762466E-06	-3.996125E-04	-9.752059E-09
43271.	2.526856E-03	8.955684E-08	6.800874E-08	-1.606972E-06	-4.034071E-04	2.731846E-08
43275.	2.548405E-03	9.041008E-08	6.644361E-08	-1.446920E-06	-4.068690E-04	-1.707703E-09
43279.	2.567856E-03	9.484126E-08	6.582777E-08	-1.282329E-06	-4.100008E-04	1.872598E-08
43283.	2.585812E-03	9.557126E-08	6.518307E-08	-1.113482E-06	-4.127713E-04	1.190686E-08
43287.	2.601102E-03	9.987818E-08	6.358217E-08	-9.408523E-07	-4.152450E-04	6.901590E-09
43291.	2.614284E-03	1.010541E-07	6.379272E-08	-7.646703E-07	-4.173829E-04	2.544816E-08
43295.	2.625397E-03	1.047358E-07	6.144201E-08	-5.850375E-07	-4.191949E-04	-2.525663E-09
43299.	2.634411E-03	1.067879E-07	6.216316E-08	-4.024453E-07	-4.206694E-04	3.344461E-08
43303.	2.641365E-03	1.095705E-07	5.951791E-08	-2.166596E-07	-4.218254E-04	-4.818401E-09
43307.	2.646203E-03	1.126934E-07	6.025002E-08	-2.820832E-08	-4.226425E-04	3.275958E-08
43311.	2.648984E-03	1.145625E-07	5.783894E-08	1.627126E-07	-4.231322E-04	1.595182E-09
43315.	2.649719E-03	1.185991E-07	5.809110E-08	3.560420E-07	-4.232988E-04	2.391287E-08
43323.	2.645098E-03	1.244280E-07	5.579435E-08	7.483658E-07	-4.226626E-04	1.084948E-08
43329.	2.636402E-03	1.276520E-07	5.356052E-08	1.046005E-06	-4.213531E-04	8.358291E-10
43333.	2.628023E-03	1.313681E-07	5.405479E-08	1.246134E-06	-4.200711E-04	2.585964E-08
43337.	2.617659E-03	1.332643E-07	5.198479E-08	1.447041E-06	-4.184712E-04	1.322541E-08
43341.	2.605337E-03	1.377176E-07	5.187886E-08	1.648679E-06	-4.165621E-04	1.197867E-08
43345.	2.591065E-03	1.392914E-07	5.056315E-08	1.850508E-06	-4.143402E-04	2.730235E-08

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43349.	2.574835E-03	1.440369E-07	4.966437E-08	2.052421E-06	-4.118084E-04	-9.240448E-10
43353.	2.556686E-03	1.457780E-07	4.917869E-08	2.253968E-06	-4.089695E-04	3.712165E-08
43357.	2.536608E-03	1.503452E-07	4.755517E-08	2.455093E-06	-4.058242E-04	-7.291359E-09
43361.	2.514590E-03	1.526958E-07	4.772955E-08	2.655505E-06	-4.023749E-04	3.829780E-08
43365.	2.490695E-03	1.567291E-07	4.566368E-08	2.854776E-06	-3.986156E-04	-4.065083E-09
43369.	2.464900E-03	1.599267E-07	4.613305E-08	3.053039E-06	-3.945604E-04	2.987348E-08
43373.	2.437275E-03	1.633157E-07	4.404619E-08	3.249910E-06	-3.902114E-04	7.929754E-09
43377.	2.407801E-03	1.673690E-07	4.441691E-08	3.445232E-06	-3.855706E-04	1.506290E-08
43381.	2.375910E-03	1.695596E-07	3.992144E-08	3.642301E-06	-3.804680E-04	-1.667275E-09
43385.	2.344380E-03	1.715753E-07	3.465167E-08	3.825770E-06	-3.754138E-04	-2.829731E-08
43389.	2.311585E-03	1.710050E-07	2.718124E-08	4.004808E-06	-3.701464E-04	6.265138E-09
43393.	2.277621E-03	1.722020E-07	1.904219E-08	4.179098E-06	-3.646846E-04	-4.389583E-08
43397.	2.242376E-03	1.710052E-07	1.049006E-08	4.349204E-06	-3.590135E-04	3.425136E-09
43401.	2.205937E-03	1.715919E-07	1.002242E-09	4.515232E-06	-3.531304E-04	-5.010356E-08
43405.	2.168306E-03	1.703666E-07	-7.807002E-09	4.676723E-06	-3.470594E-04	-7.480459E-09
43409.	2.129427E-03	1.703129E-07	-1.765342E-08	4.834642E-06	-3.407659E-04	-4.600853E-08
43413.	2.089539E-03	1.693786E-07	-2.615779E-08	4.987929E-06	-3.343099E-04	-2.839425E-08
43421.	2.006503E-03	1.679295E-07	-4.342896E-08	5.282548E-06	-3.208464E-04	-5.210313E-08
43425.	1.963453E-03	1.665735E-07	-5.163441E-08	5.423683E-06	-3.138557E-04	-2.416634E-08
43429.	1.919711E-03	1.658729E-07	-5.854114E-08	5.559840E-06	-3.067483E-04	-7.131304E-08
43433.	1.874928E-03	1.641149E-07	-6.508219E-08	5.691622E-06	-2.994657E-04	-2.284457E-08
43437.	1.829431E-03	1.630339E-07	-7.056782E-08	5.818885E-06	-2.920624E-04	-8.031792E-08
43441.	1.783102E-03	1.609651E-07	-7.516803E-08	5.941026E-06	-2.845256E-04	-2.718506E-08
43445.	1.735926E-03	1.592594E-07	-7.878467E-08	6.059202E-06	-2.768351E-04	-7.737888E-08
43449.	1.688265E-03	1.568658E-07	-8.124352E-08	6.172182E-06	-2.690691E-04	-4.162763E-08
43453.	1.639786E-03	1.543973E-07	-8.274602E-08	6.281258E-06	-2.611650E-04	-6.476542E-08
43457.	1.591037E-03	1.515159E-07	-8.307418E-08	6.385298E-06	-2.532164E-04	-6.271545E-08
43461.	1.541576E-03	1.483153E-07	-8.226954E-08	6.485231E-06	-2.451473E-04	-4.870228E-08
43463.	1.516972E-03	1.464939E-07	-8.150429E-08	6.533314E-06	-2.411328E-04	-8.704466E-08
43467.	1.467180E-03	1.428940E-07	-7.912480E-08	6.625587E-06	-2.330141E-04	-4.290541E-08
43471.	1.416864E-03	1.385628E-07	-7.558089E-08	6.713773E-06	-2.247968E-04	-7.435051E-08
43475.	1.366529E-03	1.342566E-07	-7.135356E-08	6.796983E-06	-2.165831E-04	-6.125183E-08
43479.	1.315800E-03	1.292771E-07	-6.568568E-08	6.876004E-06	-2.083024E-04	-5.673501E-08
43483.	1.265246E-03	1.240963E-07	-5.996184E-08	6.950160E-06	-2.000523E-04	-7.943737E-08
43487.	1.214375E-03	1.188411E-07	-5.260583E-08	7.019813E-06	-1.917322E-04	-4.157175E-08

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43491.	1.163824E-03	1.127605E-07	-4.575670E-08	7.084723E-06	-1.834828E-04	-9.053033E-08
43495.	1.113198E-03	1.075722E-07	-3.746003E-08	7.144984E-06	-1.752217E-04	-3.701475E-08
43499.	1.062735E-03	1.010542E-07	-3.007404E-08	7.200775E-06	-1.669888E-04	-9.062144E-08
43513.	8.845471E-04	8.700959E-08	-6.727732E-09	7.360649E-06	-1.379445E-04	-3.573211E-08
43517.	8.335807E-04	8.738662E-08	-6.738840E-09	7.396261E-06	-1.296429E-04	-8.727454E-08
43521.	7.836870E-04	9.028666E-08	-5.272701E-09	7.426089E-06	-1.215179E-04	-3.747643E-08
43525.	7.352466E-04	9.044983E-08	-5.115262E-09	7.450542E-06	-1.136159E-04	-7.990026E-08
43529.	6.882443E-04	9.375825E-08	-4.323180E-09	7.469320E-06	-1.059541E-04	-4.700513E-08
43533.	6.429182E-04	9.364678E-08	-3.286021E-09	7.482544E-06	-9.854951E-05	-6.646684E-08
43537.	5.992733E-04	9.685459E-08	-3.372990E-09	7.490125E-06	-9.142005E-05	-6.026569E-08
43541.	5.574714E-04	9.703710E-08	-1.426060E-09	7.492192E-06	-8.458210E-05	-5.251995E-08
43545.	5.175381E-04	9.958050E-08	-2.303755E-09	7.488596E-06	-7.804439E-05	-7.160567E-08
43549.	4.796062E-04	1.005779E-07	2.674960E-10	7.479407E-06	-7.182373E-05	-4.348194E-08
43553.	4.436898E-04	1.020273E-07	-9.943900E-10	7.464547E-06	-6.592535E-05	-7.651404E-08
43557.	4.098648E-04	1.041474E-07	1.640779E-09	7.443781E-06	-6.036320E-05	-4.229515E-08
43561.	3.782140E-04	1.043790E-07	5.919255E-10	7.417278E-06	-5.513921E-05	-7.372857E-08
43565.	3.487121E-04	1.075215E-07	2.649985E-09	7.384760E-06	-5.026537E-05	-4.839132E-08
43569.	3.214590E-04	1.068396E-07	2.377184E-09	7.346453E-06	-4.574037E-05	-6.551982E-08
43573.	2.963938E-04	1.105482E-07	3.345023E-09	7.302126E-06	-4.157212E-05	-5.821745E-08
43577.	2.736167E-04	1.095678E-07	4.171648E-09	7.251999E-06	-3.775842E-05	-5.627241E-08
43581.	2.530736E-04	1.131366E-07	3.849866E-09	7.195800E-06	-3.430472E-05	-6.701693E-08
43585.	2.348140E-04	1.126237E-07	5.726773E-09	7.133496E-06	-3.121287E-05	-5.040341E-08
43589.	2.188087E-04	1.154029E-07	4.315937E-09	7.064968E-06	-2.847962E-05	-7.084402E-08
43593.	2.050565E-04	1.159869E-07	6.816399E-09	6.990012E-06	-2.610809E-05	-5.051596E-08
43597.	1.935213E-04	1.175444E-07	4.837497E-09	6.908732E-06	-2.408086E-05	-6.829015E-08
43601.	1.841434E-04	1.195090E-07	7.280650E-09	6.820798E-06	-2.240489E-05	-5.631065E-08
43605.	1.768893E-04	1.198734E-07	5.423788E-09	6.726438E-06	-2.105809E-05	-6.096699E-08
43609.	1.716880E-04	1.230967E-07	7.131152E-09	6.625325E-06	-2.004647E-05	-6.480229E-08
43613.	1.685053E-04	1.226790E-07	6.015986E-09	6.517664E-06	-1.934782E-05	-5.270802E-08
43617.	1.672745E-04	1.266364E-07	6.551111E-09	6.403156E-06	-1.896809E-05	-7.166810E-08
43621.	1.679512E-04	1.260849E-07	6.520993E-09	6.281961E-06	-1.888495E-05	-4.754192E-08
43624.	1.696890E-04	1.281141E-07	7.268892E-09	6.186545E-06	-1.902531E-05	-5.284496E-08
43632.	1.789451E-04	1.324397E-07	7.046324E-09	5.912571E-06	-2.012722E-05	-6.128481E-08
43636.	1.859530E-04	1.337641E-07	4.947926E-09	5.765151E-06	-2.105428E-05	-5.257065E-08
43640.	1.944323E-04	1.367895E-07	6.443723E-09	5.610549E-06	-2.222476E-05	-7.071675E-08

LAGEOS EPOCH	RADIATION PERIGEE	PRESSURE NODE	PERTURBATIONS INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
43644.	2.042765E-04	1.372434E-07	4.971582E-09	5.449170E-06	-2.360617E-05	-4.289948E-08
43648.	2.154156E-04	1.409351E-07	5.601633E-09	5.280701E-06	-2.520187E-05	-7.659746E-08
43652.	2.277299E-04	1.410285E-07	5.079915E-09	5.105382E-06	-2.698287E-05	-3.822777E-08
43656.	2.411060E-04	1.447743E-07	4.691589E-09	4.923242E-06	-2.893121E-05	-7.575305E-08
43660.	2.554658E-04	1.450751E-07	5.084478E-09	4.734020E-06	-3.104429E-05	-4.068596E-08
43664.	2.706402E-04	1.483034E-07	3.912449E-09	4.538169E-06	-3.328166E-05	-6.755967E-08
43668.	2.865652E-04	1.492303E-07	4.884980E-09	4.335335E-06	-3.564753E-05	-4.974622E-08
43672.	3.030613E-04	1.516189E-07	3.351098E-09	4.126148E-06	-3.809859E-05	-5.402512E-08
43676.	3.200805E-04	1.533021E-07	4.448526E-09	3.910330E-06	-4.064201E-05	-6.227866E-08
43680.	3.378955E-04	1.552378E-07	1.943057E-09	3.685577E-06	-4.331412E-05	-4.547032E-08

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41501.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
6508901	41502.	0.000000	0.000000	0.000000	-0.00000001	0.00000018	-0.00000008
6508901	41503.	0.000000	0.000000	0.000000	-0.00000001	0.00000036	-0.00000016
6508901	41504.	0.000000	0.000000	0.000000	-0.00000002	0.00000092	-0.00000025
6508901	41505.	0.000000	0.000000	0.000000	-0.00000003	0.00000147	-0.00000034
6508901	41506.	0.000000	-0.000001	0.000000	-0.00000003	0.00000241	-0.00000043
6508901	41507.	0.000000	-0.000002	0.000000	-0.00000004	0.00000335	-0.00000051
6508901	41508.	0.000001	-0.000002	0.000000	-0.00000005	0.00000463	-0.00000058
6508901	41509.	0.000001	-0.000002	0.000000	-0.00000005	0.00000592	-0.00000066
6508901	41510.	0.000001	-0.000003	0.000000	-0.00000006	0.00000753	-0.00000072
6508901	41511.	0.000001	-0.000003	0.000000	-0.00000006	0.00000913	-0.00000079
6508901	41512.	0.000001	-0.000005	-0.000001	-0.00000006	0.00001104	-0.00000086
6508901	41513.	0.000001	-0.000006	-0.000001	-0.00000007	0.00001295	-0.00000093
6508901	41514.	0.000001	-0.000007	-0.000001	-0.00000007	0.00001515	-0.00000099
6508901	41515.	0.000001	-0.000008	0.000000	-0.00000008	0.00001735	-0.00000105
6508901	41516.	0.000002	-0.000009	0.000000	-0.00000009	0.00001984	-0.00000112
6508901	41517.	0.000002	-0.000009	0.000000	-0.00000009	0.00002233	-0.00000118
6508901	41518.	0.000002	-0.000010	0.000000	-0.00000010	0.00002508	-0.00000124
6508901	41519.	0.000002	-0.000011	0.000000	-0.00000010	0.00002784	-0.00000130
6508901	41520.	0.000003	-0.000012	0.000000	-0.00000011	0.00003087	-0.00000136
6508901	41521.	0.000004	-0.000014	0.000000	-0.00000011	0.00003389	-0.00000142
6508901	41522.	0.000004	-0.000015	0.000000	-0.00000012	0.00003718	-0.00000148
6508901	41523.	0.000004	-0.000017	0.000000	-0.00000012	0.00004047	-0.00000154
6508901	41524.	0.000005	-0.000018	0.000000	-0.00000012	0.00004403	-0.00000160
6508901	41525.	0.000005	-0.000020	0.000000	-0.00000012	0.00004759	-0.00000166
6508901	41526.	0.000006	-0.000021	0.000000	-0.00000013	0.00005143	-0.00000173
6508901	41527.	0.000006	-0.000023	0.000000	-0.00000013	0.00005527	-0.00000179
6508901	41528.	0.000006	-0.000025	0.000000	-0.00000014	0.00005942	-0.00000187
6508901	41529.	0.000006	-0.000027	0.000000	-0.00000014	0.00006356	-0.00000194
6508901	41530.	0.000007	-0.000029	-0.000001	-0.00000015	0.00006803	-0.00000202
6508901	41531.	0.000007	-0.000031	-0.000001	-0.00000015	0.00007250	-0.00000209
6508901	41532.	0.000008	-0.000032	-0.000001	-0.00000016	0.00007733	-0.00000217
6508901	41533.	0.000009	-0.000034	0.000000	-0.00000016	0.00008216	-0.00000225
6508901	41534.	0.000009	-0.000036	0.000000	-0.00000017	0.00008734	-0.00000233
6508901	41535.	0.000009	-0.000038	0.000000	-0.00000018	0.00009253	-0.00000241

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41536.	0.000011	-0.000041	0.000000	-0.00000019	0.00009808	-0.00000249
6508901	41537.	0.000012	-0.000043	0.000000	-0.00000019	0.00010363	-0.00000257
6508901	41538.	0.000013	-0.000046	-0.000001	-0.00000020	0.00010951	-0.00000265
6508901	41539.	0.000013	-0.000049	-0.000001	-0.00000020	0.00011539	-0.00000272
6508901	41540.	0.000014	-0.000051	-0.000001	-0.00000020	0.00012157	-0.00000278
6508901	41541.	0.000014	-0.000054	0.000000	-0.00000020	0.00012775	-0.00000284
6508901	41542.	0.000015	-0.000057	0.000000	-0.00000021	0.00013421	-0.00000290
6508901	41543.	0.000015	-0.000059	0.000000	-0.00000021	0.00014066	-0.00000296
6508901	41544.	0.000016	-0.000062	-0.000001	-0.00000022	0.00014736	-0.00000301
6508901	41545.	0.000017	-0.000065	-0.000001	-0.00000022	0.00015407	-0.00000307
6508901	41546.	0.000018	-0.000068	-0.000001	-0.00000023	0.00016102	-0.00000312
6508901	41547.	0.000019	-0.000070	-0.000001	-0.00000023	0.00016797	-0.00000318
6508901	41548.	0.000020	-0.000073	-0.000001	-0.00000023	0.00017517	-0.00000323
6508901	41549.	0.000021	-0.000076	0.000000	-0.00000024	0.00018236	-0.00000329
6508901	41550.	0.000021	-0.000079	0.000000	-0.00000024	0.00018983	-0.00000336
6508901	41551.	0.000022	-0.000082	0.000000	-0.00000024	0.00019730	-0.00000343
6508901	41552.	0.000023	-0.000085	0.000000	-0.00000025	0.00020506	-0.00000349
6508901	41553.	0.000025	-0.000089	0.000000	-0.00000026	0.00021282	-0.00000356
6508901	41554.	0.000026	-0.000093	-0.000001	-0.00000027	0.00022090	-0.00000363
6508901	41555.	0.000026	-0.000096	-0.000001	-0.00000027	0.00022898	-0.00000370
6508901	41556.	0.000027	-0.000100	-0.000001	-0.00000028	0.00023738	-0.00000378
6508901	41557.	0.000028	-0.000103	-0.000001	-0.00000028	0.00024578	-0.00000385
6508901	41558.	0.000030	-0.000107	-0.000001	-0.00000029	0.00025454	-0.00000394
6508901	41559.	0.000031	-0.000110	0.000000	-0.00000030	0.00026330	-0.00000403
6508901	41560.	0.000032	-0.000114	-0.000001	-0.00000031	0.00027247	-0.00000413
6508901	41561.	0.000033	-0.000118	-0.000001	-0.00000031	0.00028164	-0.00000423
6508901	41562.	0.000034	-0.000122	-0.000001	-0.00000032	0.00029127	-0.00000432
6508901	41563.	0.000035	-0.000126	0.000000	-0.00000033	0.00030089	-0.00000442
6508901	41564.	0.000036	-0.000131	0.000000	-0.00000034	0.00031092	-0.00000451
6508901	41565.	0.000037	-0.000135	0.000000	-0.00000034	0.00032095	-0.00000460
6508901	41566.	0.000038	-0.000139	-0.000001	-0.00000034	0.00033138	-0.00000469
6508901	41567.	0.000039	-0.000143	-0.000001	-0.00000035	0.00034180	-0.00000477
6508901	41568.	0.000041	-0.000148	-0.000001	-0.00000036	0.00035260	-0.00000485
6508901	41569.	0.000042	-0.000152	-0.000001	-0.00000036	0.00036340	-0.00000494
6508901	41570.	0.000043	-0.000157	-0.000001	-0.00000037	0.00037457	-0.00000503

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41571.	0.000044	-0.000162	0.000000	-0.00000038	0.00038574	-0.00000511
6508901	41572.	0.000045	-0.000167	-0.000001	-0.00000038	0.00039730	-0.00000520
6508901	41573.	0.000047	-0.000172	-0.000001	-0.00000039	0.00040885	-0.00000528
6508901	41574.	0.000048	-0.000177	-0.000001	-0.00000040	0.00042077	-0.00000536
6508901	41575.	0.000050	-0.000182	-0.000001	-0.00000041	0.00043269	-0.00000545
6508901	41576.	0.000051	-0.000187	-0.000001	-0.00000042	0.00044500	-0.00000554
6508901	41577.	0.000053	-0.000192	-0.000001	-0.00000043	0.00045730	-0.00000562
6508901	41578.	0.000054	-0.000197	-0.000001	-0.00000044	0.00047000	-0.00000571
6508901	41579.	0.000056	-0.000202	-0.000001	-0.00000044	0.00048270	-0.00000580
6508901	41580.	0.000058	-0.000208	-0.000001	-0.00000045	0.00049580	-0.00000588
6508901	41581.	0.000060	-0.000213	-0.000001	-0.00000045	0.00050889	-0.00000597
6508901	41582.	0.000062	-0.000219	-0.000001	-0.00000046	0.00052239	-0.00000607
6508901	41583.	0.000063	-0.000225	0.000000	-0.00000047	0.00053589	-0.00000616
6508901	41584.	0.000065	-0.000231	-0.000001	-0.00000048	0.00054983	-0.00000627
6508901	41585.	0.000067	-0.000237	-0.000001	-0.00000049	0.00056376	-0.00000638
6508901	41586.	0.000068	-0.000243	-0.000001	-0.00000050	0.00057819	-0.00000649
6508901	41587.	0.000069	-0.000249	-0.000001	-0.00000051	0.00059261	-0.00000660
6508901	41588.	0.000071	-0.000256	-0.000001	-0.00000052	0.00060752	-0.00000671
6508901	41589.	0.000074	-0.000262	0.000000	-0.00000052	0.00062242	-0.00000681
6508901	41590.	0.000076	-0.000268	-0.000001	-0.00000053	0.00063780	-0.00000692
6508901	41591.	0.000077	-0.000274	-0.000001	-0.00000054	0.00065319	-0.00000703
6508901	41592.	0.000079	-0.000281	-0.000001	-0.00000055	0.00066904	-0.00000713
6508901	41593.	0.000081	-0.000287	-0.000001	-0.00000056	0.00068488	-0.00000723
6508901	41594.	0.000083	-0.000294	-0.000001	-0.00000057	0.00070118	-0.00000733
6508901	41595.	0.000085	-0.000301	-0.000001	-0.00000057	0.00071747	-0.00000743
6508901	41596.	0.000087	-0.000308	-0.000001	-0.00000058	0.00073418	-0.00000752
6508901	41597.	0.000089	-0.000315	-0.000001	-0.00000059	0.00075089	-0.00000761
6508901	41598.	0.000091	-0.000322	-0.000001	-0.00000060	0.00076800	-0.00000770
6508901	41599.	0.000094	-0.000329	-0.000001	-0.00000060	0.00078510	-0.00000779
6508901	41600.	0.000096	-0.000337	-0.000001	-0.00000061	0.00080261	-0.00000787
6508901	41601.	0.000098	-0.000344	-0.000001	-0.00000062	0.00082011	-0.00000796
6508901	41602.	0.000100	-0.000351	-0.000001	-0.00000063	0.00083802	-0.00000805
6508901	41603.	0.000102	-0.000359	-0.000001	-0.00000063	0.00085592	-0.00000814
6508901	41604.	0.000105	-0.000366	-0.000001	-0.00000064	0.00087422	-0.00000823
6508901	41605.	0.000107	-0.000374	-0.000001	-0.00000065	0.00089253	-0.00000832

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41606.	0.000109	-0.000382	-0.000001	-0.00000066	0.00091123	-0.00000842
6508901	41607.	0.000111	-0.000390	-0.000001	-0.00000066	0.00092994	-0.00000851
6508901	41608.	0.000114	-0.000398	-0.000002	-0.00000067	0.00094905	-0.00000860
6508901	41609.	0.000116	-0.000406	-0.000002	-0.00000068	0.00096817	-0.00000869
6508901	41610.	0.000119	-0.000415	-0.000002	-0.00000069	0.00098772	-0.00000880
6508901	41611.	0.000121	-0.000423	-0.000001	-0.00000069	0.00100727	-0.00000890
6508901	41612.	0.000123	-0.000431	-0.000001	-0.00000070	0.00102730	-0.00000900
6508901	41613.	0.000125	-0.000439	-0.000001	-0.00000071	0.00104733	-0.00000911
6508901	41614.	0.000127	-0.000448	-0.000001	-0.00000072	0.00106787	-0.00000924
6508901	41615.	0.000130	-0.000456	-0.000001	-0.00000073	0.00108840	-0.00000936
6508901	41616.	0.000133	-0.000465	-0.000001	-0.00000074	0.00110951	-0.00000949
6508901	41617.	0.000136	-0.000475	-0.000001	-0.00000075	0.00113062	-0.00000963
6508901	41618.	0.000138	-0.000484	-0.000002	-0.00000076	0.00115234	-0.00000977
6508901	41619.	0.000141	-0.000492	-0.000002	-0.00000077	0.00117406	-0.00000990
6508901	41620.	0.000144	-0.000502	-0.000002	-0.00000078	0.00119639	-0.00001004
6508901	41621.	0.000146	-0.000511	-0.000002	-0.00000079	0.00121872	-0.00001017
6508901	41622.	0.000150	-0.000520	-0.000002	-0.00000080	0.00124161	-0.00001029
6508901	41623.	0.000153	-0.000530	-0.000001	-0.00000081	0.00126450	-0.00001041
6508901	41624.	0.000155	-0.000540	-0.000001	-0.00000082	0.00128790	-0.00001052
6508901	41625.	0.000158	-0.000550	-0.000001	-0.00000083	0.00131131	-0.00001063
6508901	41626.	0.000161	-0.000560	-0.000001	-0.00000083	0.00133516	-0.00001072
6508901	41627.	0.000164	-0.000570	-0.000001	-0.00000084	0.00135900	-0.00001081
6508901	41628.	0.000167	-0.000580	-0.000002	-0.00000085	0.00138323	-0.00001090
6508901	41629.	0.000170	-0.000590	-0.000002	-0.00000085	0.00140747	-0.00001098
6508901	41630.	0.000173	-0.000601	-0.000002	-0.00000086	0.00143204	-0.00001105
6508901	41631.	0.000177	-0.000611	-0.000002	-0.00000086	0.00145661	-0.00001112
6508901	41632.	0.000179	-0.000621	-0.000002	-0.00000087	0.00148150	-0.00001119
6508901	41633.	0.000182	-0.000631	-0.000002	-0.00000088	0.00150638	-0.00001126
6508901	41634.	0.000185	-0.000643	-0.000002	-0.00000088	0.00153157	-0.00001133
6508901	41635.	0.000189	-0.000654	-0.000001	-0.00000088	0.00155676	-0.00001140
6508901	41636.	0.000192	-0.000664	-0.000002	-0.00000089	0.00158227	-0.00001147
6508901	41637.	0.000195	-0.000674	-0.000002	-0.00000089	0.00160777	-0.00001154
6508901	41638.	0.000199	-0.000686	-0.000002	-0.00000090	0.00163360	-0.00001162
6508901	41639.	0.000202	-0.000697	-0.000001	-0.00000090	0.00165942	-0.00001169
6508901	41640.	0.000206	-0.000707	-0.000001	-0.00000091	0.00168557	-0.00001176

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41641.	0.000209	-0.000718	-0.000001	-0.00000091	0.00171171	-0.00001183
6508901	41642.	0.000213	-0.000729	-0.000001	-0.00000092	0.00173819	-0.00001192
6508901	41643.	0.000216	-0.000740	-0.000001	-0.00000092	0.00176468	-0.00001200
6508901	41644.	0.000219	-0.000752	-0.000002	-0.00000093	0.00179154	-0.00001208
6508901	41645.	0.000222	-0.000763	-0.000002	-0.00000094	0.00181841	-0.00001216
6508901	41646.	0.000225	-0.000774	-0.000002	-0.00000095	0.00184565	-0.00001225
6508901	41647.	0.000229	-0.000785	-0.000002	-0.00000095	0.00187289	-0.00001234
6508901	41648.	0.000232	-0.000797	-0.000002	-0.00000095	0.00190052	-0.00001243
6508901	41649.	0.000236	-0.000809	-0.000002	-0.00000096	0.00192814	-0.00001251
6508901	41650.	0.000240	-0.000821	-0.000002	-0.00000097	0.00195613	-0.00001259
6508901	41651.	0.000243	-0.000832	-0.000002	-0.00000098	0.00198412	-0.00001267
6508901	41652.	0.000247	-0.000844	-0.000002	-0.00000098	0.00201245	-0.00001274
6508901	41653.	0.000251	-0.000856	-0.000001	-0.00000098	0.00204078	-0.00001281
6508901	41654.	0.000255	-0.000868	-0.000002	-0.00000099	0.00206942	-0.00001288
6508901	41655.	0.000258	-0.000880	-0.000002	-0.00000100	0.00209805	-0.00001295
6508901	41656.	0.000262	-0.000893	-0.000002	-0.00000100	0.00212699	-0.00001302
6508901	41657.	0.000266	-0.000905	-0.000002	-0.00000100	0.00215593	-0.00001308
6508901	41658.	0.000269	-0.000917	-0.000002	-0.00000101	0.00218515	-0.00001314
6508901	41659.	0.000272	-0.000929	-0.000002	-0.00000102	0.00221437	-0.00001320
6508901	41660.	0.000276	-0.000942	-0.000002	-0.00000102	0.00224387	-0.00001327
6508901	41661.	0.000280	-0.000954	-0.000002	-0.00000102	0.00227338	-0.00001333
6508901	41662.	0.000284	-0.000967	-0.000002	-0.00000104	0.00230319	-0.00001340
6508901	41663.	0.000288	-0.000979	-0.000002	-0.00000105	0.00233299	-0.00001348
6508901	41664.	0.000292	-0.000992	-0.000002	-0.00000105	0.00236314	-0.00001356
6508901	41665.	0.000296	-0.001004	-0.000002	-0.00000105	0.00239329	-0.00001364
6508901	41666.	0.000300	-0.001017	-0.000002	-0.00000106	0.00242381	-0.00001373
6508901	41667.	0.000303	-0.001030	-0.000002	-0.00000107	0.00245433	-0.00001381
6508901	41668.	0.000307	-0.001042	-0.000002	-0.00000108	0.00248525	-0.00001391
6508901	41669.	0.000311	-0.001055	-0.000002	-0.00000108	0.00251617	-0.00001400
6508901	41670.	0.000315	-0.001069	-0.000002	-0.00000109	0.00254748	-0.00001409
6508901	41671.	0.000319	-0.001082	-0.000002	-0.00000110	0.00257879	-0.00001417
6508901	41672.	0.000323	-0.001095	-0.000002	-0.00000111	0.00261050	-0.00001426
6508901	41673.	0.000327	-0.001108	-0.000002	-0.00000111	0.00264221	-0.00001435
6508901	41674.	0.000331	-0.001121	-0.000002	-0.00000112	0.00267433	-0.00001444
6508901	41675.	0.000335	-0.001135	-0.000002	-0.00000113	0.00270645	-0.00001453

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41676.	0.000339	-0.001149	-0.000002	-0.00000114	0.00273896	-0.00001462
6508901	41677.	0.000344	-0.001163	-0.000002	-0.00000115	0.00277148	-0.00001471
6508901	41678.	0.000348	-0.001177	-0.000002	-0.00000116	0.00280439	-0.00001480
6508901	41679.	0.000352	-0.001191	-0.000002	-0.00000116	0.00283731	-0.00001488
6508901	41680.	0.000356	-0.001205	-0.000002	-0.00000117	0.00287060	-0.00001497
6508901	41681.	0.000361	-0.001218	-0.000002	-0.00000118	0.00290389	-0.00001505
6508901	41682.	0.000365	-0.001232	-0.000002	-0.00000119	0.00293756	-0.00001514
6508901	41683.	0.000369	-0.001246	-0.000002	-0.00000119	0.00297123	-0.00001523
6508901	41684.	0.000373	-0.001261	-0.000002	-0.00000119	0.00300528	-0.00001531
6508901	41685.	0.000378	-0.001275	-0.000002	-0.00000120	0.00303933	-0.00001540
6508901	41686.	0.000383	-0.001290	-0.000002	-0.00000121	0.00307379	-0.00001549
6508901	41687.	0.000387	-0.001304	-0.000002	-0.00000122	0.00310825	-0.00001559
6508901	41688.	0.000392	-0.001319	-0.000002	-0.00000123	0.00314315	-0.00001570
6508901	41689.	0.000396	-0.001334	-0.000002	-0.00000124	0.00317805	-0.00001580
6508901	41690.	0.000400	-0.001349	-0.000002	-0.00000125	0.00321344	-0.00001592
6508901	41691.	0.000404	-0.001363	-0.000001	-0.00000126	0.00324882	-0.00001603
6508901	41692.	0.000409	-0.001378	-0.000002	-0.00000127	0.00328469	-0.00001614
6508901	41693.	0.000414	-0.001393	-0.000002	-0.00000127	0.00332055	-0.00001624
6508901	41694.	0.000419	-0.001408	-0.000002	-0.00000128	0.00335688	-0.00001634
6508901	41695.	0.000423	-0.001423	-0.000002	-0.00000129	0.00339320	-0.00001644
6508901	41696.	0.000428	-0.001439	-0.000002	-0.00000130	0.00342998	-0.00001654
6508901	41697.	0.000433	-0.001454	-0.000002	-0.00000131	0.00346675	-0.00001664
6508901	41698.	0.000438	-0.001469	-0.000002	-0.00000132	0.00350396	-0.00001673
6508901	41699.	0.000443	-0.001485	-0.000002	-0.00000133	0.00354118	-0.00001683
6508901	41700.	0.000448	-0.001501	-0.000002	-0.00000134	0.00357882	-0.00001692
6508901	41701.	0.000452	-0.001517	-0.000002	-0.00000134	0.00361645	-0.00001701
6508901	41702.	0.000457	-0.001533	-0.000003	-0.00000135	0.00365450	-0.00001711
6508901	41703.	0.000462	-0.001549	-0.000003	-0.00000136	0.00369255	-0.00001720
6508901	41704.	0.000467	-0.001565	-0.000003	-0.00000137	0.00373102	-0.00001730
6508901	41705.	0.000472	-0.001581	-0.000002	-0.00000138	0.00376948	-0.00001739
6508901	41706.	0.000477	-0.001598	-0.000002	-0.00000139	0.00380836	-0.00001748
6508901	41707.	0.000481	-0.001614	-0.000002	-0.00000139	0.00384723	-0.00001758
6508901	41708.	0.000487	-0.001630	-0.000002	-0.00000140	0.00388652	-0.00001766
6508901	41709.	0.000492	-0.001646	-0.000002	-0.00000141	0.00392580	-0.00001775
6508901	41710.	0.000497	-0.001662	-0.000002	-0.00000142	0.00396548	-0.00001785

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41711.	0.000502	-0.001679	-0.000002	-0.00000142	0.00400516	-0.00001794
6508901	41712.	0.000507	-0.001696	-0.000002	-0.00000143	0.00404522	-0.00001802
6508901	41713.	0.000512	-0.001713	-0.000002	-0.00000144	0.00408527	-0.00001810
6508901	41714.	0.000518	-0.001730	-0.000003	-0.00000145	0.00412570	-0.00001818
6508901	41715.	0.000523	-0.001747	-0.000003	-0.00000145	0.00416613	-0.00001826
6508901	41716.	0.000528	-0.001764	-0.000003	-0.00000145	0.00420691	-0.00001834
6508901	41717.	0.000534	-0.001781	-0.000002	-0.00000146	0.00424770	-0.00001842
6508901	41718.	0.000539	-0.001798	-0.000002	-0.00000147	0.00428884	-0.00001850
6508901	41719.	0.000544	-0.001816	-0.000002	-0.00000148	0.00432997	-0.00001858
6508901	41720.	0.000550	-0.001834	-0.000003	-0.00000148	0.00437148	-0.00001867
6508901	41721.	0.000555	-0.001851	-0.000003	-0.00000149	0.00441299	-0.00001875
6508901	41722.	0.000561	-0.001868	-0.000003	-0.00000150	0.00445487	-0.00001883
6508901	41723.	0.000567	-0.001885	-0.000002	-0.00000151	0.00449674	-0.00001891
6508901	41724.	0.000572	-0.001903	-0.000002	-0.00000152	0.00453899	-0.00001899
6508901	41725.	0.000577	-0.001921	-0.000002	-0.00000153	0.00458124	-0.00001908
6508901	41726.	0.000582	-0.001939	-0.000003	-0.00000153	0.00462388	-0.00001917
6508901	41727.	0.000588	-0.001956	-0.000003	-0.00000154	0.00466652	-0.00001926
6508901	41728.	0.000594	-0.001975	-0.000003	-0.00000155	0.00470956	-0.00001935
6508901	41729.	0.000600	-0.001993	-0.000002	-0.00000155	0.00475259	-0.00001944
6508901	41730.	0.000605	-0.002011	-0.000002	-0.00000156	0.00479600	-0.00001952
6508901	41731.	0.000611	-0.002029	-0.000002	-0.00000156	0.00483942	-0.00001961
6508901	41732.	0.000616	-0.002048	-0.000002	-0.00000157	0.00488319	-0.00001969
6508901	41733.	0.000622	-0.002066	-0.000002	-0.00000158	0.00492696	-0.00001977
6508901	41734.	0.000628	-0.002085	-0.000002	-0.00000158	0.00497108	-0.00001984
6508901	41735.	0.000634	-0.002103	-0.000002	-0.00000159	0.00501519	-0.00001991
6508901	41736.	0.000639	-0.002121	-0.000002	-0.00000160	0.00505963	-0.00001999
6508901	41737.	0.000645	-0.002139	-0.000002	-0.00000160	0.00510407	-0.00002006
6508901	41738.	0.000651	-0.002158	-0.000003	-0.00000161	0.00514884	-0.00002013
6508901	41739.	0.000657	-0.002177	-0.000003	-0.00000162	0.00519360	-0.00002021
6508901	41740.	0.000663	-0.002196	-0.000003	-0.00000162	0.00523871	-0.00002029
6508901	41741.	0.000668	-0.002215	-0.000002	-0.00000162	0.00528382	-0.00002037
6508901	41742.	0.000674	-0.002234	-0.000002	-0.00000163	0.00532927	-0.00002044
6508901	41743.	0.000680	-0.002254	-0.000002	-0.00000164	0.00537471	-0.00002051
6508901	41744.	0.000686	-0.002272	-0.000002	-0.00000164	0.00542049	-0.00002059
6508901	41745.	0.000692	-0.002291	-0.000002	-0.00000164	0.00546627	-0.00002066

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41746.	0.000698	-0.002310	-0.000002	-0.00000165	0.00551238	-0.00002074
6508901	41747.	0.000704	-0.002330	-0.000002	-0.00000166	0.00555850	-0.00002081
6508901	41748.	0.000710	-0.002350	-0.000002	-0.00000166	0.00560492	-0.00002088
6508901	41749.	0.000716	-0.002369	-0.000002	-0.00000167	0.00565135	-0.00002095
6508901	41750.	0.000722	-0.002388	-0.000002	-0.00000168	0.00569810	-0.00002102
6508901	41751.	0.000728	-0.002408	-0.000002	-0.00000168	0.00574484	-0.00002109
6508901	41752.	0.000734	-0.002428	-0.000002	-0.00000169	0.00579190	-0.00002116
6508901	41753.	0.000740	-0.002447	-0.000002	-0.00000169	0.00583896	-0.00002123
6508901	41754.	0.000746	-0.002467	-0.000002	-0.00000169	0.00588635	-0.00002131
6508901	41755.	0.000753	-0.002487	-0.000002	-0.00000170	0.00593373	-0.00002139
6508901	41756.	0.000759	-0.002507	-0.000002	-0.00000171	0.00598145	-0.00002147
6508901	41757.	0.000765	-0.002527	-0.000002	-0.00000171	0.00602918	-0.00002154
6508901	41758.	0.000772	-0.002547	-0.000002	-0.00000172	0.00607724	-0.00002161
6508901	41759.	0.000778	-0.002567	-0.000002	-0.00000172	0.00612530	-0.00002168
6508901	41760.	0.000784	-0.002587	-0.000002	-0.00000173	0.00617366	-0.00002175
6508901	41761.	0.000789	-0.002607	-0.000002	-0.00000173	0.00622202	-0.00002182
6508901	41762.	0.000796	-0.002628	-0.000002	-0.00000174	0.00627068	-0.00002189
6508901	41763.	0.000802	-0.002649	-0.000002	-0.00000174	0.00631934	-0.00002195
6508901	41764.	0.000809	-0.002669	-0.000002	-0.00000174	0.00636829	-0.00002201
6508901	41765.	0.000815	-0.002690	-0.000002	-0.00000175	0.00641723	-0.00002207
6508901	41766.	0.000822	-0.002710	-0.000002	-0.00000176	0.00646645	-0.00002214
6508901	41767.	0.000828	-0.002730	-0.000002	-0.00000176	0.00651567	-0.00002220
6508901	41768.	0.000835	-0.002751	-0.000003	-0.00000176	0.00656516	-0.00002225
6508901	41769.	0.000841	-0.002772	-0.000003	-0.00000176	0.00661464	-0.00002231
6508901	41770.	0.000847	-0.002793	-0.000003	-0.00000177	0.00666438	-0.00002237
6508901	41771.	0.000853	-0.002813	-0.000002	-0.00000177	0.00671412	-0.00002243
6508901	41772.	0.000860	-0.002834	-0.000003	-0.00000177	0.00676411	-0.00002249
6508901	41773.	0.000867	-0.002855	-0.000003	-0.00000178	0.00681410	-0.00002254
6508901	41774.	0.000874	-0.002877	-0.000003	-0.00000178	0.00686436	-0.00002260
6508901	41775.	0.000880	-0.002898	-0.000003	-0.00000178	0.00691462	-0.00002267
6508901	41776.	0.000886	-0.002919	-0.000003	-0.00000179	0.00696517	-0.00002274
6508901	41777.	0.000893	-0.002940	-0.000003	-0.00000180	0.00701573	-0.00002280
6508901	41778.	0.000900	-0.002961	-0.000003	-0.00000180	0.00706655	-0.00002286
6508901	41779.	0.000907	-0.002983	-0.000003	-0.00000180	0.00711738	-0.00002292
6508901	41780.	0.000914	-0.003004	-0.000003	-0.00000181	0.00716848	-0.00002298

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41781.	0.000920	-0.003025	-0.000003	-0.00000181	0.00721958	-0.00002303
6508901	41782.	0.000927	-0.003047	-0.000003	-0.00000181	0.00727093	-0.00002310
6508901	41783.	0.000934	-0.003068	-0.000003	-0.00000181	0.00732229	-0.00002316
6508901	41784.	0.000940	-0.003090	-0.000003	-0.00000182	0.00737390	-0.00002322
6508901	41785.	0.000946	-0.003112	-0.000002	-0.00000182	0.00742551	-0.00002327
6508901	41786.	0.000954	-0.003134	-0.000003	-0.00000182	0.00747736	-0.00002332
6508901	41787.	0.000961	-0.003155	-0.000003	-0.00000182	0.00752921	-0.00002337
6508901	41788.	0.000968	-0.003177	-0.000003	-0.00000182	0.00758129	-0.00002342
6508901	41789.	0.000974	-0.003199	-0.000002	-0.00000183	0.00763337	-0.00002347
6508901	41790.	0.000981	-0.003221	-0.000002	-0.00000184	0.00768567	-0.00002352
6508901	41791.	0.000988	-0.003243	-0.000002	-0.00000184	0.00773797	-0.00002357
6508901	41792.	0.000995	-0.003265	-0.000003	-0.00000184	0.00779048	-0.00002362
6508901	41793.	0.001002	-0.003286	-0.000003	-0.00000184	0.00784300	-0.00002366
6508901	41794.	0.001008	-0.003309	-0.000003	-0.00000185	0.00789572	-0.00002371
6508901	41795.	0.001014	-0.003331	-0.000002	-0.00000185	0.00794844	-0.00002376
6508901	41796.	0.001022	-0.003353	-0.000003	-0.00000185	0.00800138	-0.00002381
6508901	41797.	0.001029	-0.003375	-0.000003	-0.00000185	0.00805433	-0.00002386
6508901	41798.	0.001036	-0.003398	-0.000003	-0.00000185	0.00810750	-0.00002391
6508901	41799.	0.001042	-0.003420	-0.000002	-0.00000185	0.00816067	-0.00002396
6508901	41800.	0.001050	-0.003442	-0.000002	-0.00000186	0.00821406	-0.00002401
6508901	41801.	0.001057	-0.003464	-0.000002	-0.00000187	0.00826745	-0.00002406
6508901	41802.	0.001064	-0.003487	-0.000003	-0.00000187	0.00832107	-0.00002411
6508901	41803.	0.001071	-0.003509	-0.000003	-0.00000187	0.00837469	-0.00002416
6508901	41804.	0.001078	-0.003532	-0.000003	-0.00000187	0.00842853	-0.00002422
6508901	41805.	0.001084	-0.003555	-0.000002	-0.00000187	0.00848237	-0.00002427
6508901	41806.	0.001091	-0.003577	-0.000002	-0.00000187	0.00853643	-0.00002432
6508901	41807.	0.001099	-0.003599	-0.000002	-0.00000188	0.00859049	-0.00002436
6508901	41808.	0.001106	-0.003622	-0.000003	-0.00000189	0.00864476	-0.00002441
6508901	41809.	0.001112	-0.003645	-0.000003	-0.00000189	0.00869903	-0.00002446
6508901	41810.	0.001119	-0.003668	-0.000003	-0.00000189	0.00875350	-0.00002451
6508901	41811.	0.001127	-0.003691	-0.000002	-0.00000189	0.00880798	-0.00002455
6508901	41812.	0.001134	-0.003714	-0.000002	-0.00000190	0.00886267	-0.00002459
6508901	41813.	0.001141	-0.003736	-0.000002	-0.00000190	0.00891735	-0.00002463
6508901	41814.	0.001148	-0.003759	-0.000003	-0.00000190	0.00897222	-0.00002468
6508901	41815.	0.001155	-0.003782	-0.000003	-0.00000191	0.00902708	-0.00002472

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41816.	0.001163	-0.003806	-0.000003	-0.00000190	0.00908212	-0.00002476
6508901	41817.	0.001170	-0.003829	-0.000003	-0.00000190	0.00913716	-0.00002480
6508901	41818.	0.001177	-0.003852	-0.000003	-0.00000190	0.00919239	-0.00002484
6508901	41819.	0.001184	-0.003875	-0.000002	-0.00000191	0.00924762	-0.00002488
6508901	41820.	0.001191	-0.003898	-0.000003	-0.00000191	0.00930304	-0.00002492
6508901	41821.	0.001198	-0.003921	-0.000003	-0.00000191	0.00935846	-0.00002497
6508901	41822.	0.001206	-0.003944	-0.000003	-0.00000191	0.00941407	-0.00002501
6508901	41823.	0.001213	-0.003968	-0.000002	-0.00000192	0.00946967	-0.00002505
6508901	41824.	0.001221	-0.003992	-0.000003	-0.00000192	0.00952547	-0.00002509
6508901	41825.	0.001228	-0.004015	-0.000003	-0.00000193	0.00958127	-0.00002513
6508901	41826.	0.001235	-0.004038	-0.000003	-0.00000193	0.00963726	-0.00002517
6508901	41827.	0.001242	-0.004062	-0.000003	-0.00000193	0.00969324	-0.00002522
6508901	41828.	0.001250	-0.004086	-0.000003	-0.00000193	0.00974942	-0.00002526
6508901	41829.	0.001257	-0.004109	-0.000002	-0.00000193	0.00980560	-0.00002531
6508901	41830.	0.001264	-0.004132	-0.000003	-0.00000194	0.00986197	-0.00002535
6508901	41831.	0.001272	-0.004156	-0.000003	-0.00000194	0.00991833	-0.00002538
6508901	41832.	0.001279	-0.004180	-0.000003	-0.00000194	0.00997488	-0.00002543
6508901	41833.	0.001286	-0.004204	-0.000003	-0.00000194	0.01003143	-0.00002547
6508901	41834.	0.001293	-0.004228	-0.000003	-0.00000195	0.01008814	-0.00002551
6508901	41835.	0.001301	-0.004252	-0.000003	-0.00000195	0.01014486	-0.00002555
6508901	41836.	0.001309	-0.004276	-0.000003	-0.00000195	0.01020176	-0.00002559
6508901	41837.	0.001316	-0.004300	-0.000002	-0.00000195	0.01025866	-0.00002563
6508901	41838.	0.001323	-0.004323	-0.000003	-0.00000196	0.01031574	-0.00002567
6508901	41839.	0.001331	-0.004347	-0.000003	-0.00000196	0.01037281	-0.00002571
6508901	41840.	0.001339	-0.004371	-0.000003	-0.00000196	0.01043007	-0.00002575
6508901	41841.	0.001346	-0.004395	-0.000003	-0.00000196	0.01048733	-0.00002579
6508901	41842.	0.001354	-0.004419	-0.000003	-0.00000196	0.01054477	-0.00002583
6508901	41843.	0.001362	-0.004443	-0.000003	-0.00000197	0.01060221	-0.00002587
6508901	41844.	0.001369	-0.004467	-0.000003	-0.00000197	0.01065985	-0.00002592
6508901	41845.	0.001376	-0.004491	-0.000003	-0.00000198	0.01071750	-0.00002597
6508901	41846.	0.001384	-0.004515	-0.000003	-0.00000198	0.01077537	-0.00002602
6508901	41847.	0.001392	-0.004540	-0.000002	-0.00000198	0.01083323	-0.00002607
6508901	41848.	0.001400	-0.004564	-0.000003	-0.00000199	0.01089133	-0.00002613
6508901	41849.	0.001407	-0.004589	-0.000003	-0.00000199	0.01094942	-0.00002618
6508901	41850.	0.001415	-0.004613	-0.000003	-0.00000200	0.01100775	-0.00002623

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41851.	0.001423	-0.004638	-0.000003	-0.00000200	0.01106608	-0.00002628
6508901	41852.	0.001431	-0.004662	-0.000003	-0.00000201	0.01112465	-0.00002634
6508901	41853.	0.001439	-0.004687	-0.000003	-0.00000201	0.01118322	-0.00002640
6508901	41854.	0.001447	-0.004712	-0.000003	-0.00000202	0.01124204	-0.00002645
6508901	41855.	0.001454	-0.004737	-0.000003	-0.00000202	0.01130086	-0.00002651
6508901	41856.	0.001462	-0.004761	-0.000003	-0.00000202	0.01135994	-0.00002657
6508901	41857.	0.001470	-0.004786	-0.000003	-0.00000203	0.01141901	-0.00002662
6508901	41858.	0.001477	-0.004810	-0.000003	-0.00000203	0.01147836	-0.00002669
6508901	41859.	0.001485	-0.004835	-0.000003	-0.00000203	0.01153771	-0.00002675
6508901	41860.	0.001493	-0.004861	-0.000004	-0.00000203	0.01159732	-0.00002681
6508901	41861.	0.001501	-0.004886	-0.000004	-0.00000204	0.01165693	-0.00002686
6508901	41862.	0.001509	-0.004912	-0.000004	-0.00000205	0.01171679	-0.00002692
6508901	41863.	0.001517	-0.004937	-0.000003	-0.00000205	0.01177665	-0.00002698
6508901	41864.	0.001525	-0.004961	-0.000003	-0.00000206	0.01183677	-0.00002703
6508901	41865.	0.001533	-0.004986	-0.000003	-0.00000206	0.01189689	-0.00002709
6508901	41866.	0.001541	-0.005012	-0.000003	-0.00000207	0.01195726	-0.00002715
6508901	41867.	0.001549	-0.005038	-0.000003	-0.00000207	0.01201763	-0.00002720
6508901	41868.	0.001556	-0.005063	-0.000004	-0.00000207	0.01207822	-0.00002725
6508901	41869.	0.001564	-0.005088	-0.000004	-0.00000207	0.01213881	-0.00002730
6508901	41870.	0.001572	-0.005113	-0.000004	-0.00000207	0.01219964	-0.00002735
6508901	41871.	0.001580	-0.005139	-0.000004	-0.00000208	0.01226046	-0.00002740
6508901	41872.	0.001588	-0.005165	-0.000004	-0.00000208	0.01232152	-0.00002746
6508901	41873.	0.001596	-0.005191	-0.000003	-0.00000208	0.01238257	-0.00002751
6508901	41874.	0.001604	-0.005216	-0.000004	-0.00000209	0.01244386	-0.00002756
6508901	41875.	0.001612	-0.005242	-0.000004	-0.00000210	0.01250514	-0.00002761
6508901	41876.	0.001620	-0.005268	-0.000004	-0.00000210	0.01256665	-0.00002765
6508901	41877.	0.001628	-0.005293	-0.000004	-0.00000210	0.01262816	-0.00002770
6508901	41878.	0.001636	-0.005319	-0.000004	-0.00000210	0.01268987	-0.00002774
6508901	41879.	0.001644	-0.005345	-0.000004	-0.00000210	0.01275159	-0.00002779
6508901	41880.	0.001652	-0.005372	-0.000004	-0.00000211	0.01281350	-0.00002783
6508901	41881.	0.001660	-0.005398	-0.000003	-0.00000212	0.01287540	-0.00002788
6508901	41882.	0.001668	-0.005424	-0.000003	-0.00000212	0.01293749	-0.00002792
6508901	41883.	0.001676	-0.005449	-0.000003	-0.00000212	0.01299957	-0.00002796
6508901	41884.	0.001684	-0.005476	-0.000004	-0.00000212	0.01306184	-0.00002800
6508901	41885.	0.001692	-0.005502	-0.000004	-0.00000213	0.01312411	-0.00002805

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41886.	0.001700	-0.005528	-0.000004	-0.00000213	0.01318655	-0.00002809
6508901	41887.	0.001709	-0.005554	-0.000004	-0.00000213	0.01324899	-0.00002812
6508901	41888.	0.001718	-0.005581	-0.000004	-0.00000213	0.01331161	-0.00002816
6508901	41889.	0.001726	-0.005607	-0.000004	-0.00000214	0.01337422	-0.00002820
6508901	41890.	0.001734	-0.005634	-0.000004	-0.00000214	0.01343702	-0.00002824
6508901	41891.	0.001741	-0.005660	-0.000004	-0.00000214	0.01349981	-0.00002828
6508901	41892.	0.001749	-0.005687	-0.000004	-0.00000214	0.01356279	-0.00002832
6508901	41893.	0.001757	-0.005713	-0.000004	-0.00000214	0.01362577	-0.00002836
6508901	41894.	0.001765	-0.005740	-0.000004	-0.00000215	0.01368893	-0.00002840
6508901	41895.	0.001773	-0.005766	-0.000003	-0.00000216	0.01375209	-0.00002844
6508901	41896.	0.001782	-0.005793	-0.000004	-0.00000216	0.01381543	-0.00002848
6508901	41897.	0.001790	-0.005819	-0.000004	-0.00000216	0.01387876	-0.00002852
6508901	41898.	0.001799	-0.005846	-0.000004	-0.00000216	0.01394227	-0.00002856
6508901	41899.	0.001807	-0.005872	-0.000003	-0.00000216	0.01400578	-0.00002859
6508901	41900.	0.001815	-0.005899	-0.000003	-0.00000217	0.01406946	-0.00002863
6508901	41901.	0.001823	-0.005926	-0.000003	-0.00000217	0.01413313	-0.00002867
6508901	41902.	0.001831	-0.005953	-0.000003	-0.00000217	0.01419697	-0.00002871
6508901	41903.	0.001839	-0.005979	-0.000003	-0.00000218	0.01426081	-0.00002875
6508901	41904.	0.001848	-0.006007	-0.000003	-0.00000217	0.01432482	-0.00002879
6508901	41905.	0.001856	-0.006034	-0.000003	-0.00000217	0.01438883	-0.00002883
6508901	41906.	0.001864	-0.006061	-0.000003	-0.00000217	0.01445299	-0.00002886
6508901	41907.	0.001872	-0.006087	-0.000003	-0.00000218	0.01451715	-0.00002889
6508901	41908.	0.001881	-0.006114	-0.000003	-0.00000218	0.01458147	-0.00002892
6508901	41909.	0.001889	-0.006141	-0.000003	-0.00000219	0.01464579	-0.00002895
6508901	41910.	0.001898	-0.006168	-0.000003	-0.00000219	0.01471025	-0.00002898
6508901	41911.	0.001906	-0.006195	-0.000003	-0.00000219	0.01477471	-0.00002902
6508901	41912.	0.001914	-0.006222	-0.000003	-0.00000219	0.01483932	-0.00002906
6508901	41913.	0.001923	-0.006249	-0.000003	-0.00000219	0.01490393	-0.00002909
6508901	41914.	0.001932	-0.006277	-0.000003	-0.00000219	0.01496869	-0.00002913
6508901	41915.	0.001940	-0.006304	-0.000003	-0.00000219	0.01503344	-0.00002916
6508901	41916.	0.001949	-0.006331	-0.000003	-0.00000220	-0.48490166	-0.00002919
6508901	41917.	0.001957	-0.006357	-0.000003	-0.00000220	-0.98483676	-0.00002922
6508901	41918.	0.001966	-0.006384	-0.000003	-0.00000221	-0.48477169	-0.00002926
6508901	41919.	0.001974	-0.006412	-0.000003	-0.00000221	0.01529338	-0.00002930
6508901	41920.	0.001982	-0.006440	-0.000003	-0.00000221	0.01535862	-0.00002934

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41921.	0.001991	-0.006467	-0.000003	-0.00000221	0.01542385	-0.00002938
6508901	41922.	0.002000	-0.006495	-0.000003	-0.00000222	0.01548927	-0.00002942
6508901	41923.	0.002008	-0.006522	-0.000003	-0.00000222	0.01555469	-0.00002947
6508901	41924.	0.002017	-0.006549	-0.000004	-0.00000222	0.01562030	-0.00002950
6508901	41925.	0.002026	-0.006577	-0.000004	-0.00000222	0.01568592	-0.00002954
6508901	41926.	0.002035	-0.006605	-0.000004	-0.00000222	0.01575172	-0.00002959
6508901	41927.	0.002043	-0.006633	-0.000004	-0.00000223	0.01581752	-0.00002963
6508901	41928.	0.002051	-0.006661	-0.000004	-0.00000223	0.01588352	-0.00002968
6508901	41929.	0.002060	-0.006688	-0.000003	-0.00000223	0.01594953	-0.00002973
6508901	41930.	0.002069	-0.006716	-0.000003	-0.00000223	0.01601577	-0.00002979
6508901	41931.	0.002077	-0.006744	-0.000003	-0.00000224	0.01608201	-0.00002984
6508901	41932.	0.002086	-0.006772	-0.000004	-0.00000224	0.01614850	-0.00002990
6508901	41933.	0.002094	-0.006799	-0.000004	-0.00000225	0.01621499	-0.00002996
6508901	41934.	0.002104	-0.006828	-0.000004	-0.00000225	0.01628171	-0.00003001
6508901	41935.	0.002113	-0.006856	-0.000003	-0.00000225	0.01634844	-0.00003006
6508901	41936.	0.002122	-0.006884	-0.000004	-0.00000226	0.01641541	-0.00003011
6508901	41937.	0.002130	-0.006912	-0.000004	-0.00000226	0.01648237	-0.00003016
6508901	41938.	0.002138	-0.006940	-0.000004	-0.00000227	0.01654954	-0.00003021
6508901	41939.	0.002147	-0.006968	-0.000004	-0.00000227	0.01661671	-0.00003026
6508901	41940.	0.002156	-0.006996	-0.000004	-0.00000227	0.01668408	-0.00003030
6508901	41941.	0.002164	-0.007024	-0.000003	-0.00000227	0.01675145	-0.00003034
6508901	41942.	0.002174	-0.007053	-0.000003	-0.00000228	0.01681901	-0.00003039
6508901	41943.	0.002183	-0.007082	-0.000003	-0.00000228	0.01688657	-0.00003043
6508901	41944.	0.002192	-0.007110	-0.000004	-0.00000228	0.01695433	-0.00003048
6508901	41945.	0.002200	-0.007138	-0.000004	-0.00000229	0.01702208	-0.00003052
6508901	41946.	0.002209	-0.007167	-0.000004	-0.00000229	0.01709003	-0.00003057
6508901	41947.	0.002218	-0.007196	-0.000003	-0.00000230	0.01715798	-0.00003061
6508901	41948.	0.002227	-0.007225	-0.000004	-0.00000230	0.01722616	-0.00003066
6508901	41949.	0.002236	-0.007253	-0.000004	-0.00000230	0.01729433	-0.00003071
6508901	41950.	0.002245	-0.007281	-0.000004	-0.00000231	0.01736276	-0.00003077
6508901	41951.	0.002254	-0.007310	-0.000004	-0.00000231	0.01743118	-0.00003083
6508901	41952.	0.002263	-0.007339	-0.000004	-0.00000231	0.01749987	-0.00003089
6508901	41953.	0.002271	-0.007368	-0.000003	-0.00000231	0.01756856	-0.00003095
6508901	41954.	0.002280	-0.007397	-0.000004	-0.00000232	0.01763752	-0.00003102
6508901	41955.	0.002289	-0.007426	-0.000004	-0.00000233	0.01770648	-0.00003108

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41956.	0.002298	-0.007455	-0.000004	-0.00000233	0.01777573	-0.00003114
6508901	41957.	0.002307	-0.007484	-0.000004	-0.00000234	0.01784498	-0.00003121
6508901	41958.	0.002317	-0.007513	-0.000004	-0.00000234	0.01791452	-0.00003128
6508901	41959.	0.002326	-0.007542	-0.000003	-0.00000234	0.01798406	-0.00003134
6508901	41960.	0.002334	-0.007571	-0.000003	-0.00000234	0.01805388	-0.00003141
6508901	41961.	0.002343	-0.007601	-0.000003	-0.00000235	0.01812371	-0.00003147
6508901	41962.	0.002352	-0.007631	-0.000003	-0.00000236	0.01819380	-0.00003153
6508901	41963.	0.002362	-0.007661	-0.000003	-0.00000236	0.01826389	-0.00003158
6508901	41964.	0.002371	-0.007690	-0.000003	-0.00000236	0.01833423	-0.00003163
6508901	41965.	0.002380	-0.007720	-0.000003	-0.00000236	0.01840456	-0.00003168
6508901	41966.	0.002389	-0.007749	-0.000003	-0.00000237	0.01847514	-0.00003174
6508901	41967.	0.002398	-0.007779	-0.000003	-0.00000237	0.01854572	-0.00003179
6508901	41968.	0.002407	-0.007809	-0.000003	-0.00000238	0.01861654	-0.00003185
6508901	41969.	0.002416	-0.007838	-0.000003	-0.00000238	0.01868735	-0.00003190
6508901	41970.	0.002425	-0.007868	-0.000003	-0.00000238	0.01875840	-0.00003195
6508901	41971.	0.002434	-0.007898	-0.000003	-0.00000238	0.01882945	-0.00003200
6508901	41972.	0.002444	-0.007928	-0.000003	-0.00000238	0.01890073	-0.00003206
6508901	41973.	0.002453	-0.007957	-0.000003	-0.00000239	0.01897201	-0.00003211
6508901	41974.	0.002463	-0.007987	-0.000003	-0.00000239	0.01904354	-0.00003217
6508901	41975.	0.002472	-0.008017	-0.000003	-0.00000240	0.01911506	-0.00003222
6508901	41976.	0.002481	-0.008047	-0.000003	-0.00000240	0.01918682	-0.00003227
6508901	41977.	0.002489	-0.008077	-0.000003	-0.00000240	0.01925858	-0.00003232
6508901	41978.	0.002499	-0.008108	-0.000003	-0.00000241	0.01933058	-0.00003238
6508901	41979.	0.002508	-0.008138	-0.000003	-0.00000241	0.01940258	-0.00003244
6508901	41980.	0.002517	-0.008168	-0.000003	-0.00000242	0.01947482	-0.00003249
6508901	41981.	0.002527	-0.008199	-0.000003	-0.00000242	0.01954706	-0.00003254
6508901	41982.	0.002536	-0.008229	-0.000003	-0.00000242	0.01961954	-0.00003260
6508901	41983.	0.002545	-0.008259	-0.000003	-0.00000242	0.01969203	-0.00003266
6508901	41984.	0.002555	-0.008290	-0.000004	-0.00000243	0.01976478	-0.00003272
6508901	41985.	0.002565	-0.008321	-0.000004	-0.00000243	0.01983752	-0.00003277
6508901	41986.	0.002575	-0.008351	-0.000004	-0.00000243	0.01991053	-0.00003282
6508901	41987.	0.002584	-0.008382	-0.000004	-0.00000244	0.01998353	-0.00003288
6508901	41988.	0.002593	-0.008413	-0.000004	-0.00000244	0.02005676	-0.00003293
6508901	41989.	0.002603	-0.008443	-0.000004	-0.00000245	0.02013000	-0.00003298
6508901	41990.	0.002613	-0.008474	-0.000004	-0.00000245	0.02020345	-0.00003303

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	41991.	0.002622	-0.008505	-0.000003	-0.00000245	0.02027690	-0.00003308
6508901	41992.	0.002631	-0.008536	-0.000003	-0.00000245	0.02035055	-0.00003313
6508901	41993.	0.002641	-0.008567	-0.000003	-0.00000245	0.02042420	-0.00003317
6508901	41994.	0.002651	-0.008598	-0.000004	-0.00000246	0.02049805	-0.00003321
6508901	41995.	0.002660	-0.008629	-0.000004	-0.00000246	0.02057190	-0.00003325
6508901	41996.	0.002670	-0.008660	-0.000004	-0.00000246	0.02064594	-0.00003330
6508901	41997.	0.002680	-0.008691	-0.000004	-0.00000246	0.02071997	-0.00003334
6508901	41998.	0.002690	-0.008723	-0.000004	-0.00000247	0.02079418	-0.00003338
6508901	41999.	0.002700	-0.008754	-0.000004	-0.00000247	0.02086839	-0.00003341
6508901	42000.	0.002710	-0.008786	-0.000004	-0.00000248	0.02094278	-0.00003345
6508901	42001.	0.002720	-0.008817	-0.000004	-0.00000248	0.02101717	-0.00003349
6508901	42002.	0.002729	-0.008848	-0.000004	-0.00000248	0.02109173	-0.00003353
6508901	42003.	0.002739	-0.008879	-0.000004	-0.00000248	0.02116630	-0.00003357
6508901	42004.	0.002749	-0.008911	-0.000004	-0.00000249	0.02124104	-0.00003361
6508901	42005.	0.002758	-0.008942	-0.000004	-0.00000249	0.02131578	-0.00003365
6508901	42006.	0.002768	-0.008974	-0.000004	-0.00000249	0.02139069	-0.00003369
6508901	42007.	0.002778	-0.009005	-0.000004	-0.00000249	0.02146561	-0.00003373
6508901	42008.	0.002788	-0.009037	-0.000004	-0.00000249	0.02154069	-0.00003377
6508901	42009.	0.002798	-0.009068	-0.000004	-0.00000249	0.02161578	-0.00003381
6508901	42010.	0.002809	-0.009100	-0.000004	-0.00000249	-0.47830897	-0.00003385
6508901	42011.	0.002819	-0.009132	-0.000004	-0.00000250	-0.97823371	-0.00003388
6508901	42012.	0.002829	-0.009163	-0.000004	-0.00000250	-0.47815827	-0.00003393
6508901	42013.	0.002838	-0.009195	-0.000004	-0.00000251	0.02191717	-0.00003397
6508901	42014.	0.002847	-0.009227	-0.000004	-0.00000250	0.02199280	-0.00003401
6508901	42015.	0.002857	-0.009258	-0.000004	-0.00000250	0.02206842	-0.00003404
6508901	42016.	0.002867	-0.009290	-0.000004	-0.00000250	0.02214422	-0.00003409
6508901	42017.	0.002877	-0.009322	-0.000004	-0.00000251	0.02222001	-0.00003413
6508901	42018.	0.002887	-0.009354	-0.000004	-0.00000251	0.02229598	-0.00003417
6508901	42019.	0.002897	-0.009386	-0.000004	-0.00000251	0.02237195	-0.00003421
6508901	42020.	0.002907	-0.009418	-0.000004	-0.00000252	0.02244809	-0.00003424
6508901	42021.	0.002917	-0.009450	-0.000004	-0.00000252	0.02252423	-0.00003428
6508901	42022.	0.002927	-0.009482	-0.000004	-0.00000252	0.02260054	-0.00003432
6508901	42023.	0.002937	-0.009514	-0.000004	-0.00000252	0.02267684	-0.00003435
6508901	42024.	0.002947	-0.009547	-0.000004	-0.00000253	0.02275331	-0.00003439
6508901	42025.	0.002957	-0.009579	-0.000004	-0.00000253	0.02282977	-0.00003442

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42026.	0.002967	-0.009611	-0.000004	-0.00000253	0.02290639	-0.00003446
6508901	42027.	0.002977	-0.009642	-0.000004	-0.00000253	0.02298300	-0.00003449
6508901	42028.	0.002987	-0.009674	-0.000004	-0.00000253	0.02305976	-0.00003452
6508901	42029.	0.002996	-0.009707	-0.000004	-0.00000253	0.02313652	-0.00003455
6508901	42030.	0.003006	-0.009740	-0.000004	-0.00000253	0.02321344	-0.00003459
6508901	42031.	0.003016	-0.009772	-0.000004	-0.00000253	0.02329035	-0.00003462
6508901	42032.	0.003027	-0.009804	-0.000004	-0.00000254	0.02336740	-0.00003465
6508901	42033.	0.003037	-0.009836	-0.000004	-0.00000254	0.02344445	-0.00003468
6508901	42034.	0.003047	-0.009869	-0.000004	-0.00000254	0.02352164	-0.00003471
6508901	42035.	0.003057	-0.009901	-0.000004	-0.00000254	0.02359884	-0.00003474
6508901	42036.	0.003068	-0.009934	-0.000004	-0.00000254	0.02367619	-0.00003478
6508901	42037.	0.003078	-0.009967	-0.000004	-0.00000255	0.02375353	-0.00003482
6508901	42038.	0.003088	-0.009999	-0.000004	-0.00000255	0.02383103	-0.00003486
6508901	42039.	0.003098	-0.010032	-0.000004	-0.00000255	0.02390854	-0.00003489
6508901	42040.	0.003108	-0.010065	-0.000004	-0.00000255	0.02398620	-0.00003493
6508901	42041.	0.003118	-0.010097	-0.000004	-0.00000255	0.02406386	-0.00003496
6508901	42042.	0.003128	-0.010130	-0.000005	-0.00000255	0.02414168	-0.00003500
6508901	42043.	0.003138	-0.010163	-0.000005	-0.00000255	0.02421950	-0.00003503
6508901	42044.	0.003149	-0.010195	-0.000005	-0.00000255	0.02429746	-0.00003506
6508901	42045.	0.003159	-0.010228	-0.000005	-0.00000256	0.02437542	-0.00003509
6508901	42046.	0.003169	-0.010261	-0.000005	-0.00000255	0.02445353	-0.00003512
6508901	42047.	0.003179	-0.010294	-0.000005	-0.00000255	0.02453164	-0.00003516
6508901	42048.	0.003190	-0.010328	-0.000005	-0.00000255	0.02460988	-0.00003519
6508901	42049.	0.003200	-0.010361	-0.000004	-0.00000256	0.02468812	-0.00003522
6508901	42050.	0.003210	-0.010393	-0.000005	-0.00000257	0.02476650	-0.00003525
6508901	42051.	0.003220	-0.010426	-0.000005	-0.00000257	0.02484488	-0.00003527
6508901	42052.	0.003230	-0.010459	-0.000005	-0.00000257	0.02492339	-0.00003530
6508901	42053.	0.003240	-0.010492	-0.000005	-0.00000257	0.02500190	-0.00003533
6508901	42054.	0.003251	-0.010526	-0.000005	-0.00000257	0.02508054	-0.00003536
6508901	42055.	0.003261	-0.010559	-0.000005	-0.00000256	0.02515917	-0.00003539
6508901	42056.	0.003271	-0.010592	-0.000005	-0.00000257	0.02523793	-0.00003542
6508901	42057.	0.003281	-0.010625	-0.000005	-0.00000257	0.02531670	-0.00003545
6508901	42058.	0.003292	-0.010659	-0.000005	-0.00000257	0.02539559	-0.00003548
6508901	42059.	0.003303	-0.010692	-0.000005	-0.00000256	0.02547449	-0.00003550
6508901	42060.	0.003313	-0.010725	-0.000005	-0.00000257	0.02555351	-0.00003554

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42061.	0.003323	-0.010758	-0.000005	-0.00000257	0.02563253	-0.00003557
6508901	42062.	0.003334	-0.010791	-0.000005	-0.00000257	0.02571169	-0.00003560
6508901	42063.	0.003344	-0.010824	-0.000005	-0.00000257	0.02579085	-0.00003563
6508901	42064.	0.003354	-0.010858	-0.000005	-0.00000258	0.02587016	-0.00003567
6508901	42065.	0.003364	-0.010892	-0.000005	-0.00000258	0.02594946	-0.00003570
6508901	42066.	0.003375	-0.010925	-0.000005	-0.00000258	0.02602890	-0.00003573
6508901	42067.	0.003385	-0.010958	-0.000004	-0.00000258	0.02610834	-0.00003576
6508901	42068.	0.003395	-0.010992	-0.000004	-0.00000258	0.02618792	-0.00003579
6508901	42069.	0.003405	-0.011025	-0.000004	-0.00000258	0.02626750	-0.00003582
6508901	42070.	0.003416	-0.011059	-0.000004	-0.00000258	0.02634721	-0.00003585
6508901	42071.	0.003426	-0.011092	-0.000004	-0.00000258	0.02642691	-0.00003588
6508901	42072.	0.003436	-0.011126	-0.000004	-0.00000258	-0.47349325	-0.00003591
6508901	42073.	0.003446	-0.011159	-0.000003	-0.00000258	-0.97341341	-0.00003594
6508901	42074.	0.003456	-0.011193	-0.000003	-0.00000259	-0.47333342	-0.00003597
6508901	42075.	0.003467	-0.011226	-0.000003	-0.00000259	0.02674656	-0.00003600
6508901	42076.	0.003478	-0.011260	-0.000004	-0.00000259	0.02682669	-0.00003603
6508901	42077.	0.003488	-0.011294	-0.000004	-0.00000259	0.02690681	-0.00003606
6508901	42078.	0.003498	-0.011328	-0.000004	-0.00000259	0.02698707	-0.00003609
6508901	42079.	0.003508	-0.011361	-0.000003	-0.00000259	0.02706733	-0.00003612
6508901	42080.	0.003519	-0.011395	-0.000004	-0.00000259	0.02714774	-0.00003616
6508901	42081.	0.003529	-0.011429	-0.000004	-0.00000259	0.02722814	-0.00003619
6508901	42082.	0.003540	-0.011463	-0.000004	-0.00000259	0.02730868	-0.00003622
6508901	42083.	0.003550	-0.011497	-0.000003	-0.00000260	0.02738921	-0.00003625
6508901	42084.	0.003560	-0.011531	-0.000004	-0.00000260	0.02746988	-0.00003628
6508901	42085.	0.003570	-0.011564	-0.000004	-0.00000261	0.02755056	-0.00003631
6508901	42086.	0.003581	-0.011598	-0.000004	-0.00000261	0.02763139	-0.00003635
6508901	42087.	0.003591	-0.011632	-0.000003	-0.00000261	0.02771221	-0.00003638
6508901	42088.	0.003601	-0.011666	-0.000004	-0.00000261	0.02779318	-0.00003641
6508901	42089.	0.003612	-0.011700	-0.000004	-0.00000261	0.02787414	-0.00003644
6508901	42090.	0.003622	-0.011734	-0.000004	-0.00000261	0.02795526	-0.00003648
6508901	42091.	0.003632	-0.011768	-0.000004	-0.00000261	0.02803639	-0.00003651
6508901	42092.	0.003643	-0.011803	-0.000004	-0.00000261	0.02811767	-0.00003655
6508901	42093.	0.003653	-0.011837	-0.000004	-0.00000261	0.02819895	-0.00003659
6508901	42094.	0.003664	-0.011872	-0.000004	-0.00000262	0.02828039	-0.00003663
6508901	42095.	0.003675	-0.011906	-0.000004	-0.00000263	0.02836183	-0.00003666

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6508901	42096.	0.003685	-0.011940	-0.000004	-0.00000263	0.02844344	-0.00003670
6508901	42097.	0.003695	-0.011974	-0.000004	-0.00000262	0.02852504	-0.00003673
6508901	42098.	0.003706	-0.012009	-0.000004	-0.00000263	0.02860682	-0.00003677
6508901	42099.	0.003717	-0.012043	-0.000004	-0.00000263	0.02868859	-0.00003681
6508901	42100.	0.003727	-0.012078	-0.000005	-0.00000264	0.02877053	-0.00003685
6508901	42101.	0.003737	-0.012112	-0.000005	-0.00000264	0.02885248	-0.00003689
6508901	42102.	0.003748	-0.012147	-0.000005	-0.00000264	0.02893461	-0.00003693
6508901	42103.	0.003758	-0.012182	-0.000004	-0.00000264	0.02901675	-0.00003697
6508901	42104.	0.003769	-0.012216	-0.000004	-0.00000264	-0.47090092	-0.00003702
6508901	42105.	0.003779	-0.012251	-0.000004	-0.00000264	-0.97081858	-0.00003707
6508901	42106.	0.003790	-0.012286	-0.000005	-0.00000264	-0.47073606	-0.00003712
6508901	42107.	0.003801	-0.012321	-0.000005	-0.00000265	0.02934647	-0.00003716
6508901	42108.	0.003813	-0.012356	-0.000005	-0.00000265	0.02942920	-0.00003721
6508901	42109.	0.003824	-0.012391	-0.000005	-0.00000266	0.02951192	-0.00003725
6508901	42110.	0.003835	-0.012426	-0.000005	-0.00000266	0.02959486	-0.00003730
6508901	42111.	0.003845	-0.012460	-0.000004	-0.00000266	0.02967779	-0.00003734
6508901	42112.	0.003856	-0.012495	-0.000004	-0.00000266	0.02976093	-0.00003739
6508901	42113.	0.003866	-0.012530	-0.000004	-0.00000266	0.02984407	-0.00003744
6508901	42114.	0.003877	-0.012566	-0.000004	-0.00000267	0.02992744	-0.00003749
6508901	42115.	0.003887	-0.012601	-0.000004	-0.00000267	0.03001081	-0.00003754
6508901	42116.	0.003899	-0.012636	-0.000004	-0.00000268	0.03009441	-0.00003760
6508901	42117.	0.003910	-0.012671	-0.000004	-0.00000268	0.03017801	-0.00003766
6508901	42118.	0.003921	-0.012707	-0.000004	-0.00000268	0.03026188	-0.00003772
6508901	42119.	0.003932	-0.012742	-0.000004	-0.00000268	0.03034574	-0.00003777
6508901	42120.	0.003943	-0.012777	-0.000004	-0.00000269	0.03042987	-0.00003784
6508901	42121.	0.003954	-0.012812	-0.000004	-0.00000270	0.03051401	-0.00003790
6508901	42122.	0.003966	-0.012847	-0.000004	-0.00000270	0.03059843	-0.00003796
6508901	42123.	0.003977	-0.012883	-0.000004	-0.00000271	0.03068285	-0.00003802
6508901	42124.	0.003988	-0.012919	-0.000004	-0.00000271	0.03076755	-0.00003809
6508901	42125.	0.003998	-0.012955	-0.000004	-0.00000272	0.03085225	-0.00003815
6508901	42126.	0.004009	-0.012991	-0.000004	-0.00000272	0.03093723	-0.00003822
6508901	42127.	0.004020	-0.013027	-0.000004	-0.00000272	0.03102222	-0.00003829
6508901	42128.	0.004032	-0.013063	-0.000004	-0.00000273	0.03110753	-0.00003836
6508901	42129.	0.004043	-0.013099	-0.000003	-0.00000274	0.03119283	-0.00003843
6508901	42130.	0.004055	-0.013135	-0.000003	-0.00000275	0.03127846	-0.00003851

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42131.	0.004066	-0.013170	-0.000003	-0.00000275	0.03136409	-0.00003859
6508901	42132.	0.004077	-0.013206	-0.000003	-0.00000275	0.03145006	-0.00003866
6508901	42133.	0.004089	-0.013242	-0.000003	-0.00000276	0.03153603	-0.00003873
6508901	42134.	0.004100	-0.013278	-0.000004	-0.00000276	0.03162232	-0.00003880
6508901	42135.	0.004112	-0.013314	-0.000004	-0.00000277	0.03170861	-0.00003887
6508901	42136.	0.004123	-0.013351	-0.000004	-0.00000278	0.03179522	-0.00003894
6508901	42137.	0.004134	-0.013387	-0.000003	-0.00000279	0.03188183	-0.00003902
6508901	42138.	0.004145	-0.013424	-0.000003	-0.00000279	0.03196874	-0.00003909
6508901	42139.	0.004156	-0.013461	-0.000003	-0.00000279	0.03205566	-0.00003915
6508901	42140.	0.004167	-0.013498	-0.000004	-0.00000280	0.03214289	-0.00003923
6508901	42141.	0.004179	-0.013534	-0.000004	-0.00000280	0.03223011	-0.00003930
6508901	42142.	0.004191	-0.013571	-0.000004	-0.00000280	0.03231764	-0.00003937
6508901	42143.	0.004203	-0.013607	-0.000004	-0.00000281	0.03240518	-0.00003943
6508901	42144.	0.004215	-0.013644	-0.000004	-0.00000281	0.03249303	-0.00003951
6508901	42145.	0.004226	-0.013681	-0.000004	-0.00000282	0.03258089	-0.00003958
6508901	42146.	0.004238	-0.013718	-0.000004	-0.00000283	0.03266906	-0.00003965
6508901	42147.	0.004249	-0.013755	-0.000004	-0.00000284	0.03275722	-0.00003972
6508901	42148.	0.004260	-0.013793	-0.000004	-0.00000285	0.03284571	-0.00003980
6508901	42149.	0.004272	-0.013830	-0.000004	-0.00000285	0.03293420	-0.00003987
6508901	42150.	0.004283	-0.013868	-0.000004	-0.00000285	0.03302302	-0.00003994
6508901	42151.	0.004294	-0.013905	-0.000004	-0.00000286	0.03311184	-0.00004001
6508901	42152.	0.004305	-0.013943	-0.000005	-0.00000286	0.03320099	-0.00004009
6508901	42153.	0.004317	-0.013980	-0.000005	-0.00000287	0.03329014	-0.00004017
6508901	42154.	0.004329	-0.014018	-0.000005	-0.00000288	0.03337964	-0.00004025
6508901	42155.	0.004341	-0.014055	-0.000005	-0.00000288	0.03346913	-0.00004032
6508901	42156.	0.004353	-0.014092	-0.000005	-0.00000289	0.03355897	-0.00004040
6508901	42157.	0.004364	-0.014130	-0.000005	-0.00000289	0.03364881	-0.00004048
6508901	42158.	0.004376	-0.014168	-0.000005	-0.00000290	0.03373897	-0.00004055
6508901	42159.	0.004388	-0.014206	-0.000005	-0.00000291	0.03382913	-0.00004061
6508901	42160.	0.004399	-0.014245	-0.000006	-0.00000291	0.03391957	-0.00004067
6508901	42161.	0.004409	-0.014283	-0.000006	-0.00000291	0.03401000	-0.00004072
6508901	42162.	0.004421	-0.014322	-0.000006	-0.00000291	0.03410068	-0.00004078
6508901	42163.	0.004432	-0.014360	-0.000006	-0.00000292	0.03419136	-0.00004083
6508901	42164.	0.004443	-0.014398	-0.000006	-0.00000292	0.03428227	-0.00004089
6508901	42165.	0.004455	-0.014436	-0.000005	-0.00000292	0.03437318	-0.00004094

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42166.	0.004467	-0.014475	-0.000006	-0.00000292	-0.46553569	-0.00004099
6508901	42167.	0.004479	-0.014513	-0.000006	-0.00000293	-0.96544456	-0.00004103
6508901	42168.	0.004491	-0.014552	-0.000006	-0.00000294	-0.46535320	-0.00004108
6508901	42169.	0.004503	-0.014590	-0.000006	-0.00000294	0.03473815	-0.00004113
6508901	42170.	0.004514	-0.014629	-0.000006	-0.00000295	0.03482973	-0.00004119
6508901	42171.	0.004526	-0.014667	-0.000006	-0.00000295	0.03492131	-0.00004124
6508901	42172.	0.004537	-0.014706	-0.000006	-0.00000296	0.03501313	-0.00004130
6508901	42173.	0.004548	-0.014745	-0.000005	-0.00000296	0.03510496	-0.00004136
6508901	42174.	0.004559	-0.014784	-0.000005	-0.00000296	0.03519704	-0.00004141
6508901	42175.	0.004571	-0.014823	-0.000005	-0.00000296	0.03528912	-0.00004146
6508901	42176.	0.004582	-0.014862	-0.000006	-0.00000296	0.03538143	-0.00004151
6508901	42177.	0.004594	-0.014900	-0.000006	-0.00000297	0.03547373	-0.00004156
6508901	42178.	0.004607	-0.014939	-0.000006	-0.00000297	0.03556626	-0.00004161
6508901	42179.	0.004619	-0.014978	-0.000005	-0.00000297	0.03565878	-0.00004166
6508901	42180.	0.004631	-0.015017	-0.000005	-0.00000297	0.03575150	-0.00004170
6508901	42181.	0.004643	-0.015056	-0.000005	-0.00000298	0.03584421	-0.00004173
6508901	42182.	0.004655	-0.015095	-0.000005	-0.00000298	0.03593711	-0.00004178
6508901	42183.	0.004666	-0.015135	-0.000005	-0.00000298	0.03603000	-0.00004182
6508901	42184.	0.004678	-0.015174	-0.000006	-0.00000299	0.03612308	-0.00004186
6508901	42185.	0.004689	-0.015213	-0.000006	-0.00000299	0.03621616	-0.00004190
6508901	42186.	0.004701	-0.015252	-0.000006	-0.00000299	0.03630941	-0.00004193
6508901	42187.	0.004712	-0.015292	-0.000005	-0.00000299	0.03640266	-0.00004197
6508901	42188.	0.004724	-0.015331	-0.000005	-0.00000299	0.03649607	-0.00004201
6508901	42189.	0.004736	-0.015370	-0.000005	-0.00000299	0.03658948	-0.00004204
6508901	42190.	0.004748	-0.015410	-0.000005	-0.00000299	0.03668305	-0.00004208
6508901	42191.	0.004760	-0.015449	-0.000005	-0.00000299	0.03677661	-0.00004211
6508901	42192.	0.004773	-0.015488	-0.000005	-0.00000299	0.03687033	-0.00004215
6508901	42193.	0.004785	-0.015527	-0.000005	-0.00000299	0.03696404	-0.00004218
6508901	42194.	0.004798	-0.015567	-0.000006	-0.00000300	0.03705792	-0.00004222
6508901	42195.	0.004810	-0.015607	-0.000006	-0.00000300	0.03715179	-0.00004225
6508901	42196.	0.004822	-0.015646	-0.000006	-0.00000301	0.03724580	-0.00004229
6508901	42197.	0.004833	-0.015686	-0.000006	-0.00000301	0.03733982	-0.00004232
6508901	42198.	0.004844	-0.015726	-0.000006	-0.00000301	-0.46256601	-0.00004235
6508901	42199.	0.004856	-0.015766	-0.000005	-0.00000300	-0.96247184	-0.00004238
6508901	42200.	0.004868	-0.015805	-0.000005	-0.00000301	-0.46237752	-0.00004242

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42201.	0.004881	-0.015844	-0.000005	-0.00000301	0.03771680	-0.00004245
6508901	42202.	0.004894	-0.015884	-0.000005	-0.00000301	0.03781128	-0.00004249
6508901	42203.	0.004906	-0.015924	-0.000005	-0.00000301	0.03790576	-0.00004252
6508901	42204.	0.004919	-0.015964	-0.000006	-0.00000301	0.03800039	-0.00004255
6508901	42205.	0.004931	-0.016004	-0.000006	-0.00000302	0.03809502	-0.00004258
6508901	42206.	0.004944	-0.016044	-0.000006	-0.00000302	0.03818979	-0.00004262
6508901	42207.	0.004956	-0.016083	-0.000006	-0.00000302	0.03828456	-0.00004265
6508901	42208.	0.004968	-0.016124	-0.000007	-0.00000302	0.03837947	-0.00004268
6508901	42209.	0.004980	-0.016164	-0.000007	-0.00000303	0.03847438	-0.00004271
6508901	42210.	0.004993	-0.016204	-0.000007	-0.00000303	0.03856944	-0.00004275
6508901	42211.	0.005005	-0.016244	-0.000006	-0.00000303	0.03866449	-0.00004278
6508901	42212.	0.005018	-0.016284	-0.000006	-0.00000302	0.03875969	-0.00004281
6508901	42213.	0.005030	-0.016324	-0.000005	-0.00000302	0.03885489	-0.00004284
6508901	42214.	0.005042	-0.016364	-0.000006	-0.00000302	0.03895022	-0.00004288
6508901	42215.	0.005055	-0.016404	-0.000006	-0.00000303	0.03904556	-0.00004291
6508901	42216.	0.005068	-0.016445	-0.000007	-0.00000303	0.03914104	-0.00004294
6508901	42217.	0.005081	-0.016485	-0.000007	-0.00000303	0.03923651	-0.00004296
6508901	42218.	0.005094	-0.016526	-0.000007	-0.00000304	0.03933211	-0.00004299
6508901	42219.	0.005106	-0.016566	-0.000006	-0.00000304	0.03942772	-0.00004302
6508901	42220.	0.005119	-0.016607	-0.000006	-0.00000304	0.03952346	-0.00004305
6508901	42221.	0.005131	-0.016647	-0.000006	-0.00000304	0.03961919	-0.00004308
6508901	42222.	0.005144	-0.016688	-0.000006	-0.00000305	0.03971505	-0.00004311
6508901	42223.	0.005156	-0.016728	-0.000005	-0.00000305	0.03981091	-0.00004314
6508901	42224.	0.005169	-0.016768	-0.000006	-0.00000305	0.03990690	-0.00004317
6508901	42225.	0.005181	-0.016809	-0.000006	-0.00000304	0.04000288	-0.00004319
6508901	42226.	0.005193	-0.016850	-0.000006	-0.00000305	0.04009900	-0.00004323
6508901	42227.	0.005206	-0.016890	-0.000006	-0.00000305	0.04019511	-0.00004326
6508901	42228.	0.005219	-0.016931	-0.000006	-0.00000305	0.04029136	-0.00004329
6508901	42229.	0.005232	-0.016971	-0.000005	-0.00000305	0.04038761	-0.00004332
6508901	42230.	0.005245	-0.017012	-0.000006	-0.00000305	0.04048400	-0.00004335
6508901	42231.	0.005257	-0.017052	-0.000006	-0.00000305	0.04058038	-0.00004338
6508901	42232.	0.005270	-0.017093	-0.000006	-0.00000306	0.04067692	-0.00004342
6508901	42233.	0.005283	-0.017134	-0.000005	-0.00000306	0.04077345	-0.00004345
6508901	42234.	0.005296	-0.017175	-0.000005	-0.00000306	0.04087017	-0.00004350
6508901	42235.	0.005308	-0.017215	-0.000004	-0.00000306	0.04096689	-0.00004354

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42236.	0.005321	-0.017256	-0.000005	-0.00000306	0.04106380	-0.00004358
6508901	42237.	0.005333	-0.017296	-0.000005	-0.00000306	0.04116070	-0.00004361
6508901	42238.	0.005346	-0.017337	-0.000005	-0.00000306	0.04125777	-0.00004365
6508901	42239.	0.005359	-0.017378	-0.000005	-0.00000306	0.04135483	-0.00004369
6508901	42240.	0.005372	-0.017418	-0.000005	-0.00000306	0.04145204	-0.00004372
6508901	42241.	0.005385	-0.017459	-0.000004	-0.00000307	0.04154925	-0.00004375
6508901	42242.	0.005398	-0.017500	-0.000005	-0.00000307	0.04164660	-0.00004378
6508901	42243.	0.005410	-0.017541	-0.000005	-0.00000307	0.04174395	-0.00004380
6508901	42244.	0.005423	-0.017583	-0.000005	-0.00000307	0.04184143	-0.00004384
6508901	42245.	0.005435	-0.017624	-0.000005	-0.00000307	0.04193891	-0.00004387
6508901	42246.	0.005448	-0.017665	-0.000005	-0.00000307	0.04203652	-0.00004389
6508901	42247.	0.005460	-0.017706	-0.000004	-0.00000308	0.04213414	-0.00004392
6508901	42248.	0.005473	-0.017747	-0.000004	-0.00000308	0.04223189	-0.00004396
6508901	42249.	0.005486	-0.017788	-0.000004	-0.00000308	0.04232963	-0.00004399
6508901	42250.	0.005499	-0.017829	-0.000004	-0.00000308	0.04242750	-0.00004402
6508901	42251.	0.005511	-0.017870	-0.000004	-0.00000308	0.04252538	-0.00004405
6508901	42252.	0.005525	-0.017912	-0.000005	-0.00000308	0.04262341	-0.00004409
6508901	42253.	0.005538	-0.017954	-0.000005	-0.00000308	0.04272143	-0.00004412
6508901	42254.	0.005551	-0.017995	-0.000005	-0.00000308	0.04281960	-0.00004415
6508901	42255.	0.005564	-0.018036	-0.000004	-0.00000308	0.04291776	-0.00004418
6508901	42256.	0.005577	-0.018078	-0.000004	-0.00000309	0.04301606	-0.00004421
6508901	42257.	0.005589	-0.018119	-0.000004	-0.00000309	0.04311436	-0.00004424
6508901	42258.	0.005602	-0.018160	-0.000004	-0.00000309	0.04321280	-0.00004427
6508901	42259.	0.005614	-0.018201	-0.000004	-0.00000308	0.04331123	-0.00004430
6508901	42260.	0.005627	-0.018243	-0.000005	-0.00000309	-0.45659021	-0.00004432
6508901	42261.	0.005640	-0.018285	-0.000005	-0.00000309	-0.95649165	-0.00004435
6508901	42262.	0.005653	-0.018326	-0.000005	-0.00000309	-0.45639296	-0.00004438
6508901	42263.	0.005667	-0.018368	-0.000005	-0.00000309	0.04370572	-0.00004441
6508901	42264.	0.005680	-0.018410	-0.000006	-0.00000309	0.04380454	-0.00004444
6508901	42265.	0.005693	-0.018451	-0.000006	-0.00000309	0.04390335	-0.00004447
6508901	42266.	0.005707	-0.018493	-0.000006	-0.00000310	0.04400230	-0.00004450
6508901	42267.	0.005720	-0.018535	-0.000005	-0.00000310	0.04410124	-0.00004453
6508901	42268.	0.005734	-0.018577	-0.000006	-0.00000310	0.04420032	-0.00004456
6508901	42269.	0.005747	-0.018619	-0.000006	-0.00000310	0.04429940	-0.00004459
6508901	42270.	0.005760	-0.018661	-0.000006	-0.00000310	0.04439860	-0.00004462

EPOCH	GEOS-A		DRAG PERTURBATIONS			MEAN ANOMALY	A
	PERIGEE	NODE	INCLINATION	ECCENTRICITY			
6508901	42271.	0.005772	-0.018702	-0.000005	-0.00000310	0.04449780	-0.00004464
6508901	42272.	0.005785	-0.018744	-0.000005	-0.00000310	0.04459714	-0.00004467
6508901	42273.	0.005798	-0.018787	-0.000005	-0.00000310	0.04469648	-0.00004470
6508901	42274.	0.005812	-0.018829	-0.000006	-0.00000311	0.04479596	-0.00004473
6508901	42275.	0.005825	-0.018871	-0.000006	-0.00000311	0.04489544	-0.00004476
6508901	42276.	0.005839	-0.018913	-0.000006	-0.00000311	0.04499505	-0.00004479
6508901	42277.	0.005853	-0.018955	-0.000006	-0.00000312	0.04509466	-0.00004482
6508901	42278.	0.005867	-0.018997	-0.000006	-0.00000312	0.04519441	-0.00004485
6508901	42279.	0.005880	-0.019039	-0.000005	-0.00000312	0.04529417	-0.00004489
6508901	42280.	0.005893	-0.019081	-0.000005	-0.00000312	0.04539408	-0.00004493
6508901	42281.	0.005906	-0.019124	-0.000005	-0.00000313	0.04549399	-0.00004497
6508901	42282.	0.005919	-0.019166	-0.000005	-0.00000313	0.04559404	-0.00004500
6508901	42283.	0.005932	-0.019208	-0.000005	-0.00000313	0.04569410	-0.00004503
6508901	42284.	0.005945	-0.019250	-0.000005	-0.00000314	0.04579431	-0.00004506
6508901	42285.	0.005958	-0.019292	-0.000005	-0.00000314	0.04589451	-0.00004509
6508901	42286.	0.005972	-0.019335	-0.000005	-0.00000314	0.04599486	-0.00004512
6508901	42287.	0.005985	-0.019377	-0.000005	-0.00000314	0.04609520	-0.00004516
6508901	42288.	0.005999	-0.019420	-0.000005	-0.00000314	0.04619570	-0.00004520
6508901	42289.	0.006012	-0.019462	-0.000005	-0.00000314	0.04629619	-0.00004523
6508901	42290.	0.006026	-0.019505	-0.000005	-0.00000315	0.04639684	-0.00004527
6508901	42291.	0.006039	-0.019547	-0.000004	-0.00000315	0.04649750	-0.00004530
6508901	42292.	0.006052	-0.019590	-0.000004	-0.00000315	-0.45340169	-0.00004534
6508901	42293.	0.006065	-0.019632	-0.000004	-0.00000315	-0.95330088	-0.00004537
6508901	42294.	0.006078	-0.019674	-0.000004	-0.00000316	-0.45319990	-0.00004541
6508901	42295.	0.006090	-0.019716	-0.000003	-0.00000317	0.04690108	-0.00004545
6508901	42296.	0.006103	-0.019759	-0.000004	-0.00000317	0.04700224	-0.00004549
6508901	42297.	0.006116	-0.019801	-0.000004	-0.00000317	0.04710339	-0.00004553
6508901	42298.	0.006129	-0.019844	-0.000004	-0.00000317	0.04720473	-0.00004557
6508901	42299.	0.006142	-0.019886	-0.000004	-0.00000317	0.04730606	-0.00004561
6508901	42300.	0.006155	-0.019929	-0.000004	-0.00000317	0.04740760	-0.00004566
6508901	42301.	0.006168	-0.019972	-0.000004	-0.00000318	0.04750913	-0.00004570
6508901	42302.	0.006182	-0.020015	-0.000004	-0.00000318	0.04761087	-0.00004576
6508901	42303.	0.006195	-0.020057	-0.000004	-0.00000319	0.04771261	-0.00004581
6508901	42304.	0.006209	-0.020100	-0.000004	-0.00000320	0.04781459	-0.00004587
6508901	42305.	0.006222	-0.020143	-0.000004	-0.00000320	0.04791656	-0.00004592

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42306.	0.006234	-0.020185	-0.000004	-0.00000321	0.04801878	-0.00004598
6508901	42307.	0.006246	-0.020228	-0.000003	-0.00000321	0.04812100	-0.00004603
6508901	42308.	0.006259	-0.020271	-0.000004	-0.00000321	0.04822347	-0.00004609
6508901	42309.	0.006272	-0.020314	-0.000004	-0.00000321	0.04832594	-0.00004614
6508901	42310.	0.006286	-0.020358	-0.000005	-0.00000322	0.04842865	-0.00004620
6508901	42311.	0.006299	-0.020401	-0.000005	-0.00000322	0.04853136	-0.00004625
6508901	42312.	0.006313	-0.020444	-0.000005	-0.00000322	0.04863432	-0.00004631
6508901	42313.	0.006327	-0.020488	-0.000005	-0.00000323	0.04873729	-0.00004636
6508901	42314.	0.006340	-0.020532	-0.000005	-0.00000323	0.04884048	-0.00004641
6508901	42315.	0.006354	-0.020575	-0.000005	-0.00000324	0.04894366	-0.00004646
6508901	42316.	0.006368	-0.020619	-0.000005	-0.00000324	0.04904708	-0.00004651
6508901	42317.	0.006381	-0.020662	-0.000005	-0.00000324	0.04915051	-0.00004656
6508901	42318.	0.006394	-0.020705	-0.000006	-0.00000325	0.04925416	-0.00004662
6508901	42319.	0.006407	-0.020749	-0.000006	-0.00000325	0.04935781	-0.00004667
6508901	42320.	0.006421	-0.020793	-0.000006	-0.00000326	0.04946170	-0.00004672
6508901	42321.	0.006434	-0.020837	-0.000006	-0.00000326	0.04956560	-0.00004677
6508901	42322.	0.006447	-0.020881	-0.000006	-0.00000326	-0.45033024	-0.00004684
6508901	42323.	0.006461	-0.020925	-0.000006	-0.00000326	-0.95022609	-0.00004690
6508901	42324.	0.006475	-0.020970	-0.000006	-0.00000327	-0.45012166	-0.00004696
6508901	42325.	0.006489	-0.021014	-0.000006	-0.00000327	0.04998277	-0.00004702
6508901	42326.	0.006504	-0.021058	-0.000007	-0.00000327	0.05008748	-0.00004709
6508901	42327.	0.006518	-0.021102	-0.000007	-0.00000328	0.05019218	-0.00004716
6508901	42328.	0.006533	-0.021147	-0.000007	-0.00000328	0.05029721	-0.00004723
6508901	42329.	0.006547	-0.021191	-0.000006	-0.00000329	0.05040223	-0.00004730
6508901	42330.	0.006561	-0.021235	-0.000006	-0.00000330	0.05050760	-0.00004738
6508901	42331.	0.006575	-0.021279	-0.000006	-0.00000331	0.05061296	-0.00004746
6508901	42332.	0.006589	-0.021324	-0.000007	-0.00000332	0.05071869	-0.00004754
6508901	42333.	0.006603	-0.021369	-0.000008	-0.00000332	0.05082441	-0.00004763
6508901	42334.	0.006617	-0.021414	-0.000008	-0.00000332	0.05093053	-0.00004772
6508901	42335.	0.006630	-0.021459	-0.000008	-0.00000333	0.05103665	-0.00004781
6508901	42336.	0.006646	-0.021504	-0.000008	-0.00000333	0.05114315	-0.00004789
6508901	42337.	0.006661	-0.021549	-0.000007	-0.00000334	0.05124964	-0.00004797
6508901	42338.	0.006676	-0.021594	-0.000007	-0.00000335	0.05135647	-0.00004804
6508901	42339.	0.006691	-0.021639	-0.000007	-0.00000335	0.05146329	-0.00004811
6508901	42340.	0.006705	-0.021685	-0.000007	-0.00000336	0.05157042	-0.00004818

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42341.	0.006720	-0.021730	-0.000006	-0.00000336	0.05167754	-0.00004824
6508901	42342.	0.006734	-0.021776	-0.000007	-0.00000337	0.05178494	-0.00004830
6508901	42343.	0.006748	-0.021821	-0.000007	-0.00000337	0.05189234	-0.00004836
6508901	42344.	0.006762	-0.021866	-0.000007	-0.00000337	0.05200000	-0.00004842
6508901	42345.	0.006776	-0.021911	-0.000007	-0.00000338	0.05210766	-0.00004848
6508901	42346.	0.006790	-0.021957	-0.000007	-0.00000338	0.05221560	-0.00004854
6508901	42347.	0.006805	-0.022003	-0.000007	-0.00000339	0.05232353	-0.00004860
6508901	42348.	0.006820	-0.022048	-0.000007	-0.00000339	0.05243175	-0.00004866
6508901	42349.	0.006835	-0.022094	-0.000007	-0.00000339	0.05253997	-0.00004873
6508901	42350.	0.006851	-0.022139	-0.000007	-0.00000339	0.05264848	-0.00004880
6508901	42351.	0.006866	-0.022185	-0.000006	-0.00000340	0.05275698	-0.00004886
6508901	42352.	0.006881	-0.022231	-0.000006	-0.00000341	0.05286578	-0.00004892
6508901	42353.	0.006895	-0.022277	-0.000006	-0.00000341	0.05297457	-0.00004899
6508901	42354.	0.006910	-0.022323	-0.000006	-0.00000342	-0.44691634	-0.00004906
6508901	42355.	0.006924	-0.022369	-0.000006	-0.00000342	-0.94680725	-0.00004913
6508901	42356.	0.006939	-0.022415	-0.000006	-0.00000343	-0.44669784	-0.00004920
6508901	42357.	0.006953	-0.022461	-0.000006	-0.00000344	0.05341157	-0.00004927
6508901	42358.	0.006967	-0.022507	-0.000006	-0.00000344	0.05352132	-0.00004935
6508901	42359.	0.006981	-0.022553	-0.000006	-0.00000344	0.05363106	-0.00004942
6508901	42360.	0.006997	-0.022600	-0.000006	-0.00000344	0.05374112	-0.00004950
6508901	42361.	0.007012	-0.022646	-0.000006	-0.00000345	0.05385118	-0.00004957
6508901	42362.	0.007028	-0.022692	-0.000006	-0.00000346	0.05396155	-0.00004963
6508901	42363.	0.007043	-0.022739	-0.000006	-0.00000346	0.05407191	-0.00004970
6508901	42364.	0.007058	-0.022786	-0.000006	-0.00000347	0.05418258	-0.00004977
6508901	42365.	0.007073	-0.022832	-0.000006	-0.00000348	0.05429325	-0.00004984
6508901	42366.	0.007087	-0.022878	-0.000007	-0.00000348	0.05440424	-0.00004991
6508901	42367.	0.007101	-0.022925	-0.000007	-0.00000349	0.05451523	-0.00004998
6508901	42368.	0.007115	-0.022972	-0.000007	-0.00000349	0.05462652	-0.00005005
6508901	42369.	0.007129	-0.023019	-0.000007	-0.00000349	0.05473781	-0.00005012
6508901	42370.	0.007144	-0.023066	-0.000007	-0.00000350	0.05484939	-0.00005019
6508901	42371.	0.007158	-0.023113	-0.000007	-0.00000351	0.05496098	-0.00005026
6508901	42372.	0.007172	-0.023161	-0.000007	-0.00000352	0.05507290	-0.00005034
6508901	42373.	0.007186	-0.023208	-0.000007	-0.00000352	0.05518482	-0.00005041
6508901	42374.	0.007202	-0.023255	-0.000007	-0.00000353	0.05529708	-0.00005049
6508901	42375.	0.007218	-0.023302	-0.000007	-0.00000353	0.05540933	-0.00005056

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42376.	0.007233	-0.023350	-0.000007	-0.00000353	0.05552193	-0.00005064
6508901	42377.	0.007248	-0.023397	-0.000006	-0.00000354	0.05563453	-0.00005072
6508901	42378.	0.007263	-0.023445	-0.000007	-0.00000354	0.05574749	-0.00005079
6508901	42379.	0.007278	-0.023492	-0.000007	-0.00000355	0.05586044	-0.00005087
6508901	42380.	0.007292	-0.023540	-0.000008	-0.00000356	0.05597372	-0.00005094
6508901	42381.	0.007305	-0.023588	-0.000008	-0.00000357	0.05608699	-0.00005101
6508901	42382.	0.007320	-0.023636	-0.000008	-0.00000357	0.05620057	-0.00005108
6508901	42383.	0.007334	-0.023684	-0.000008	-0.00000357	0.05631415	-0.00005114
6508901	42384.	0.007348	-0.023733	-0.000008	-0.00000358	0.05642801	-0.00005121
6508901	42385.	0.007363	-0.023781	-0.000007	-0.00000358	0.05654187	-0.00005127
6508901	42386.	0.007378	-0.023829	-0.000007	-0.00000358	0.05665602	-0.00005133
6508901	42387.	0.007394	-0.023877	-0.000007	-0.00000359	0.05677016	-0.00005139
6508901	42388.	0.007410	-0.023925	-0.000007	-0.00000359	0.05688457	-0.00005145
6508901	42389.	0.007426	-0.023973	-0.000007	-0.00000360	0.05699898	-0.00005151
6508901	42390.	0.007440	-0.024021	-0.000008	-0.00000361	0.05711367	-0.00005157
6508901	42391.	0.007454	-0.024070	-0.000008	-0.00000361	0.05722835	-0.00005163
6508901	42392.	0.007468	-0.024119	-0.000008	-0.00000362	0.05734331	-0.00005170
6508901	42393.	0.007483	-0.024167	-0.000008	-0.00000362	0.05745828	-0.00005176
6508901	42394.	0.007498	-0.024216	-0.000008	-0.00000363	0.05757353	-0.00005183
6508901	42395.	0.007513	-0.024265	-0.000008	-0.00000363	0.05768878	-0.00005190
6508901	42396.	0.007529	-0.024314	-0.000007	-0.00000363	0.05780432	-0.00005196
6508901	42397.	0.007544	-0.024362	-0.000006	-0.00000364	0.05791985	-0.00005202
6508901	42398.	0.007560	-0.024411	-0.000006	-0.00000364	0.05803569	-0.00005209
6508901	42399.	0.007576	-0.024460	-0.000006	-0.00000365	0.05815152	-0.00005216
6508901	42400.	0.007593	-0.024509	-0.000006	-0.00000365	0.05826769	-0.00005224
6508901	42401.	0.007609	-0.024558	-0.000006	-0.00000366	0.05838385	-0.00005232
6508901	42402.	0.007624	-0.024607	-0.000006	-0.00000367	0.05850037	-0.00005240
6508901	42403.	0.007639	-0.024656	-0.000006	-0.00000368	0.05861688	-0.00005248
6508901	42404.	0.007654	-0.024706	-0.000006	-0.00000369	0.05873372	-0.00005255
6508901	42405.	0.007669	-0.024755	-0.000006	-0.00000369	0.05885057	-0.00005262
6508901	42406.	0.007684	-0.024805	-0.000006	-0.00000369	0.05896772	-0.00005269
6508901	42407.	0.007699	-0.024854	-0.000006	-0.00000370	0.05908487	-0.00005275
6508901	42408.	0.007715	-0.024903	-0.000006	-0.00000370	0.05920232	-0.00005282
6508901	42409.	0.007731	-0.024952	-0.000005	-0.00000371	0.05931976	-0.00005288
6508901	42410.	0.007748	-0.025001	-0.000005	-0.00000371	0.05943747	-0.00005294

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42411.	0.007764	-0.025050	-0.000005	-0.00000371	0.05955518	-0.00005300
6508901	42412.	0.007781	-0.025100	-0.000005	-0.00000372	0.05967315	-0.00005306
6508901	42413.	0.007798	-0.025150	-0.000005	-0.00000373	0.05979112	-0.00005311
6508901	42414.	0.007814	-0.025200	-0.000005	-0.00000374	0.05990935	-0.00005317
6508901	42415.	0.007830	-0.025250	-0.000005	-0.00000374	0.06002758	-0.00005322
6508901	42416.	0.007845	-0.025300	-0.000005	-0.00000374	-0.43985394	-0.00005328
6508901	42417.	0.007860	-0.025350	-0.000005	-0.00000374	-0.93973546	-0.00005333
6508901	42418.	0.007874	-0.025400	-0.000005	-0.00000374	-0.43961674	-0.00005339
6508901	42419.	0.007889	-0.025450	-0.000005	-0.00000375	0.06050198	-0.00005344
6508901	42420.	0.007905	-0.025500	-0.000005	-0.00000375	0.06062095	-0.00005350
6508901	42421.	0.007922	-0.025549	-0.000005	-0.00000376	0.06073992	-0.00005355
6508901	42422.	0.007939	-0.025600	-0.000005	-0.00000377	0.06085912	-0.00005361
6508901	42423.	0.007956	-0.025650	-0.000005	-0.00000377	0.06097831	-0.00005366
6508901	42424.	0.007972	-0.025700	-0.000005	-0.00000378	0.06109773	-0.00005371
6508901	42425.	0.007988	-0.025750	-0.000005	-0.00000378	0.06121714	-0.00005375
6508901	42426.	0.008004	-0.025801	-0.000006	-0.00000378	0.06133678	-0.00005381
6508901	42427.	0.008019	-0.025851	-0.000006	-0.00000378	0.06145641	-0.00005386
6508901	42428.	0.008034	-0.025902	-0.000007	-0.00000379	0.06157627	-0.00005391
6508901	42429.	0.008049	-0.025952	-0.000007	-0.00000379	0.06169613	-0.00005395
6508901	42430.	0.008063	-0.026003	-0.000007	-0.00000379	0.06181620	-0.00005400
6508901	42431.	0.008078	-0.026054	-0.000007	-0.00000380	0.06193627	-0.00005404
6508901	42432.	0.008094	-0.026105	-0.000006	-0.00000380	0.06205653	-0.00005408
6508901	42433.	0.008110	-0.026155	-0.000005	-0.00000381	0.06217679	-0.00005412
6508901	42434.	0.008127	-0.026206	-0.000006	-0.00000381	0.06229723	-0.00005417
6508901	42435.	0.008143	-0.026256	-0.000006	-0.00000381	0.06241767	-0.00005421
6508901	42436.	0.008160	-0.026307	-0.000006	-0.00000382	0.06253829	-0.00005425
6508901	42437.	0.008176	-0.026358	-0.000006	-0.00000382	0.06265890	-0.00005428
6508901	42438.	0.008191	-0.026409	-0.000007	-0.00000382	0.06277969	-0.00005432
6508901	42439.	0.008206	-0.026460	-0.000007	-0.00000382	0.06290048	-0.00005436
6508901	42440.	0.008220	-0.026511	-0.000007	-0.00000383	0.06302144	-0.00005440
6508901	42441.	0.008235	-0.026563	-0.000007	-0.00000383	0.06314240	-0.00005443
6508901	42442.	0.008250	-0.026614	-0.000007	-0.00000383	0.06326352	-0.00005447
6508901	42443.	0.008264	-0.026665	-0.000006	-0.00000383	0.06338463	-0.00005450
6508901	42444.	0.008280	-0.026716	-0.000006	-0.00000383	0.06350591	-0.00005454
6508901	42445.	0.008296	-0.026767	-0.000006	-0.00000383	0.06362718	-0.00005458

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42446.	0.008312	-0.026818	-0.000006	-0.00000383	0.06374862	-0.00005462
6508901	42447.	0.008328	-0.026870	-0.000006	-0.00000383	0.06387006	-0.00005465
6508901	42448.	0.008344	-0.026922	-0.000006	-0.00000384	-0.43600834	-0.00005469
6508901	42449.	0.008359	-0.026973	-0.000006	-0.00000384	-0.93588673	-0.00005472
6508901	42450.	0.008374	-0.027024	-0.000007	-0.00000384	-0.43576496	-0.00005476
6508901	42451.	0.008389	-0.027076	-0.000007	-0.00000384	0.06435680	-0.00005479
6508901	42452.	0.008403	-0.027128	-0.000007	-0.00000384	0.06447873	-0.00005483
6508901	42453.	0.008418	-0.027179	-0.000006	-0.00000384	0.06460066	-0.00005487
6508901	42454.	0.008433	-0.027230	-0.000006	-0.00000385	0.06472275	-0.00005491
6508901	42455.	0.008448	-0.027282	-0.000006	-0.00000385	0.06484484	-0.00005495
6508901	42456.	0.008464	-0.027333	-0.000006	-0.00000385	0.06496710	-0.00005499
6508901	42457.	0.008479	-0.027384	-0.000005	-0.00000385	0.06508935	-0.00005502
6508901	42458.	0.008496	-0.027436	-0.000005	-0.00000385	0.06521178	-0.00005506
6508901	42459.	0.008512	-0.027487	-0.000005	-0.00000385	0.06533420	-0.00005509
6508901	42460.	0.008528	-0.027539	-0.000005	-0.00000385	0.06545678	-0.00005513
6508901	42461.	0.008543	-0.027590	-0.000005	-0.00000385	0.06557936	-0.00005517
6508901	42462.	0.008559	-0.027642	-0.000005	-0.00000386	0.06570212	-0.00005520
6508901	42463.	0.008575	-0.027693	-0.000005	-0.00000386	0.06582487	-0.00005523
6508901	42464.	0.008590	-0.027745	-0.000006	-0.00000386	0.06594778	-0.00005527
6508901	42465.	0.008604	-0.027797	-0.000006	-0.00000386	0.06607068	-0.00005531
6508901	42466.	0.008619	-0.027849	-0.000005	-0.00000387	0.06619375	-0.00005535
6508901	42467.	0.008634	-0.027901	-0.000004	-0.00000387	0.06631682	-0.00005538
6508901	42468.	0.008650	-0.027952	-0.000004	-0.00000387	0.06644005	-0.00005542
6508901	42469.	0.008666	-0.028004	-0.000004	-0.00000386	0.06656327	-0.00005545
6508901	42470.	0.008683	-0.028056	-0.000005	-0.00000386	0.06668666	-0.00005549
6508901	42471.	0.008699	-0.028107	-0.000005	-0.00000386	0.06681004	-0.00005553
6508901	42472.	0.008715	-0.028159	-0.000006	-0.00000387	0.06693359	-0.00005557
6508901	42473.	0.008732	-0.028211	-0.000006	-0.00000387	0.06705714	-0.00005561
6508901	42474.	0.008748	-0.028263	-0.000006	-0.00000387	0.06718086	-0.00005565
6508901	42475.	0.008763	-0.028315	-0.000006	-0.00000387	0.06730458	-0.00005568
6508901	42476.	0.008779	-0.028367	-0.000006	-0.00000388	0.06742848	-0.00005572
6508901	42477.	0.008794	-0.028420	-0.000006	-0.00000388	0.06755238	-0.00005576
6508901	42478.	0.008810	-0.028472	-0.000006	-0.00000388	-0.43232355	-0.00005580
6508901	42479.	0.008825	-0.028524	-0.000006	-0.00000388	-0.93219948	-0.00005583
6508901	42480.	0.008841	-0.028576	-0.000006	-0.00000389	-0.43207524	-0.00005587

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42481.	0.008858	-0.028629	-0.000006	-0.00000389	0.06804900	-0.00005591
6508901	42482.	0.008875	-0.028681	-0.000007	-0.00000389	0.06817343	-0.00005596
6508901	42483.	0.008891	-0.028732	-0.000007	-0.00000389	0.06829785	-0.00005600
6508901	42484.	0.008908	-0.028785	-0.000007	-0.00000390	0.06842247	-0.00005605
6508901	42485.	0.008924	-0.028838	-0.000007	-0.00000390	0.06854710	-0.00005609
6508901	42486.	0.008941	-0.028891	-0.000008	-0.00000391	0.06867192	-0.00005613
6508901	42487.	0.008957	-0.028944	-0.000008	-0.00000391	0.06879674	-0.00005617
6508901	42488.	0.008973	-0.028997	-0.000008	-0.00000391	0.06892176	-0.00005622
6508901	42489.	0.008990	-0.029050	-0.000008	-0.00000392	0.06904678	-0.00005627
6508901	42490.	0.009006	-0.029103	-0.000008	-0.00000392	0.06917200	-0.00005631
6508901	42491.	0.009021	-0.029156	-0.000008	-0.00000392	0.06929721	-0.00005635
6508901	42492.	0.009037	-0.029209	-0.000008	-0.00000392	0.06942262	-0.00005640
6508901	42493.	0.009053	-0.029261	-0.000008	-0.00000392	0.06954803	-0.00005644
6508901	42494.	0.009070	-0.029314	-0.000009	-0.00000393	0.06967363	-0.00005648
6508901	42495.	0.009087	-0.029367	-0.000009	-0.00000393	0.06979922	-0.00005652
6508901	42496.	0.009104	-0.029421	-0.000010	-0.00000394	0.06992502	-0.00005657
6508901	42497.	0.009120	-0.029474	-0.000010	-0.00000394	0.07005081	-0.00005661
6508901	42498.	0.009137	-0.029528	-0.000010	-0.00000394	0.07017681	-0.00005666
6508901	42499.	0.009154	-0.029581	-0.000009	-0.00000394	0.07030280	-0.00005671
6508901	42500.	0.009170	-0.029635	-0.000009	-0.00000395	0.07042901	-0.00005676
6508901	42501.	0.009185	-0.029689	-0.000009	-0.00000395	0.07055522	-0.00005680
6508901	42502.	0.009201	-0.029742	-0.000009	-0.00000396	0.07068164	-0.00005685
6508901	42503.	0.009217	-0.029795	-0.000008	-0.00000396	0.07080806	-0.00005690
6508901	42504.	0.009233	-0.029849	-0.000008	-0.00000396	0.07093469	-0.00005695
6508901	42505.	0.009249	-0.029902	-0.000008	-0.00000396	0.07106131	-0.00005700
6508901	42506.	0.009266	-0.029956	-0.000009	-0.00000396	0.07118815	-0.00005705
6508901	42507.	0.009283	-0.030009	-0.000009	-0.00000396	0.07131499	-0.00005709
6508901	42508.	0.009300	-0.030063	-0.000009	-0.00000397	0.07144206	-0.00005714
6508901	42509.	0.009317	-0.030117	-0.000009	-0.00000398	0.07156912	-0.00005719
6508901	42510.	0.009333	-0.030171	-0.000009	-0.00000398	-0.42830358	-0.00005724
6508901	42511.	0.009350	-0.030224	-0.000009	-0.00000398	-0.92817628	-0.00005730
6508901	42512.	0.009367	-0.030279	-0.000009	-0.00000399	-0.42804873	-0.00005736
6508901	42513.	0.009384	-0.030333	-0.000008	-0.00000400	0.07207882	-0.00005742
6508901	42514.	0.009400	-0.030387	-0.000008	-0.00000400	0.07220663	-0.00005748
6508901	42515.	0.009415	-0.030441	-0.000007	-0.00000400	0.07233444	-0.00005753

EPOCH	GEOS-A		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE	NODE	INCLINATION				
6508901	42516.	0.009431	-0.030494	-0.000007	-0.00000400	0.07246250	-0.00005759
6508901	42517.	0.009447	-0.030547	-0.000007	-0.00000400	0.07259055	-0.00005765
6508901	42518.	0.009464	-0.030601	-0.000008	-0.00000401	0.07271886	-0.00005771
6508901	42519.	0.009480	-0.030655	-0.000008	-0.00000402	0.07284717	-0.00005776
6508901	42520.	0.009498	-0.030710	-0.000008	-0.00000402	0.07297572	-0.00005782
6508901	42521.	0.009515	-0.030764	-0.000007	-0.00000402	0.07310428	-0.00005787
6508901	42522.	0.009532	-0.030818	-0.000008	-0.00000403	0.07323309	-0.00005793
6508901	42523.	0.009548	-0.030872	-0.000008	-0.00000403	0.07336189	-0.00005798
6508901	42524.	0.009565	-0.030927	-0.000007	-0.00000404	0.07349095	-0.00005804
6508901	42525.	0.009581	-0.030982	-0.000006	-0.00000404	0.07362000	-0.00005810
6508901	42526.	0.009597	-0.031036	-0.000007	-0.00000405	0.07374933	-0.00005816
6508901	42527.	0.009612	-0.031090	-0.000007	-0.00000405	0.07387865	-0.00005821
6508901	42528.	0.009629	-0.031145	-0.000007	-0.00000406	0.07400823	-0.00005827
6508901	42529.	0.009645	-0.031199	-0.000006	-0.00000406	0.07413781	-0.00005833
6508901	42530.	0.009663	-0.031254	-0.000007	-0.00000407	0.07426766	-0.00005839
6508901	42531.	0.009680	-0.031308	-0.000008	-0.00000407	0.07439750	-0.00005845
6508901	42532.	0.009697	-0.031362	-0.000008	-0.00000408	0.07452762	-0.00005852
6508901	42533.	0.009714	-0.031417	-0.000008	-0.00000408	0.07465774	-0.00005858
6508901	42534.	0.009732	-0.031472	-0.000008	-0.00000408	0.07478813	-0.00005864
6508901	42535.	0.009749	-0.031527	-0.000008	-0.00000408	0.07491852	-0.00005870
6508901	42536.	0.009766	-0.031583	-0.000008	-0.00000409	0.07504920	-0.00005876
6508901	42537.	0.009783	-0.031638	-0.000008	-0.00000409	0.07517988	-0.00005883
6508901	42538.	0.009800	-0.031693	-0.000008	-0.00000410	0.07531084	-0.00005890
6508901	42539.	0.009817	-0.031748	-0.000008	-0.00000410	0.07544181	-0.00005896
6508901	42540.	0.009834	-0.031803	-0.000008	-0.00000411	0.07557307	-0.00005902
6508901	42541.	0.009850	-0.031858	-0.000008	-0.00000411	0.07570433	-0.00005909
6508901	42542.	0.009867	-0.031914	-0.000008	-0.00000412	-0.42416414	-0.00005915
6508901	42543.	0.009885	-0.031969	-0.000008	-0.00000412	-0.92403261	-0.00005921
6508901	42544.	0.009903	-0.032025	-0.000009	-0.00000412	-0.42390081	-0.00005927
6508901	42545.	0.009922	-0.032081	-0.000009	-0.00000413	0.07623099	-0.00005933
6508901	42546.	0.009940	-0.032137	-0.000009	-0.00000414	0.07636305	-0.00005939
6508901	42547.	0.009958	-0.032193	-0.000009	-0.00000414	0.07649510	-0.00005944
6508901	42548.	0.009975	-0.032249	-0.000009	-0.00000415	0.07662741	-0.00005950
6508901	42549.	0.009993	-0.032304	-0.000008	-0.00000415	0.07675971	-0.00005956
6508901	42550.	0.010011	-0.032360	-0.000008	-0.00000415	0.07689227	-0.00005962

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42551.	0.010029	-0.032416	-0.000008	-0.00000415	0.07702483	-0.00005967
6508901	42552.	0.010046	-0.032472	-0.000008	-0.00000416	0.07715765	-0.00005972
6508901	42553.	0.010063	-0.032528	-0.000008	-0.00000417	0.07729046	-0.00005978
6508901	42554.	0.010081	-0.032584	-0.000009	-0.00000417	0.07742353	-0.00005984
6508901	42555.	0.010099	-0.032640	-0.000009	-0.00000417	0.07755660	-0.00005990
6508901	42556.	0.010117	-0.032696	-0.000009	-0.00000418	0.07768992	-0.00005996
6508901	42557.	0.010136	-0.032753	-0.000009	-0.00000419	0.07782324	-0.00006001
6508901	42558.	0.010155	-0.032810	-0.000009	-0.00000420	0.07795682	-0.00006007
6508901	42559.	0.010173	-0.032867	-0.000009	-0.00000420	0.07809039	-0.00006012
6508901	42560.	0.010191	-0.032924	-0.000008	-0.00000420	0.07822421	-0.00006018
6508901	42561.	0.010208	-0.032980	-0.000007	-0.00000420	0.07835803	-0.00006024
6508901	42562.	0.010225	-0.033036	-0.000007	-0.00000421	0.07849210	-0.00006030
6508901	42563.	0.010243	-0.033093	-0.000007	-0.00000421	0.07862617	-0.00006035
6508901	42564.	0.010261	-0.033150	-0.000008	-0.00000422	0.07876050	-0.00006041
6508901	42565.	0.010278	-0.033206	-0.000008	-0.00000422	0.07889483	-0.00006046
6508901	42566.	0.010295	-0.033263	-0.000008	-0.00000422	0.07902941	-0.00006052
6508901	42567.	0.010313	-0.033319	-0.000008	-0.00000423	0.07916399	-0.00006058
6508901	42568.	0.010331	-0.033376	-0.000008	-0.00000424	0.07929881	-0.00006063
6508901	42569.	0.010350	-0.033433	-0.000007	-0.00000424	0.07943364	-0.00006068
6508901	42570.	0.010368	-0.033490	-0.000007	-0.00000425	0.07956871	-0.00006074
6508901	42571.	0.010386	-0.033547	-0.000007	-0.00000425	0.07970379	-0.00006080
6508901	42572.	0.010403	-0.033604	-0.000006	-0.00000426	-0.42016091	-0.00006085
6508901	42573.	0.010421	-0.033662	-0.000005	-0.00000426	-0.92002560	-0.00006090
6508901	42574.	0.010438	-0.033719	-0.000005	-0.00000426	-0.41989006	-0.00006095
6508901	42575.	0.010455	-0.033775	-0.000005	-0.00000426	0.08024547	-0.00006100
6508901	42576.	0.010472	-0.033832	-0.000005	-0.00000427	0.08038124	-0.00006105
6508901	42577.	0.010488	-0.033889	-0.000005	-0.00000427	0.08051700	-0.00006111
6508901	42578.	0.010506	-0.033947	-0.000006	-0.00000428	0.08065299	-0.00006116
6508901	42579.	0.010524	-0.034004	-0.000006	-0.00000428	0.08078898	-0.00006121
6508901	42580.	0.010542	-0.034061	-0.000006	-0.00000429	0.08092520	-0.00006126
6508901	42581.	0.010560	-0.034118	-0.000006	-0.00000429	0.08106142	-0.00006131
6508901	42582.	0.010578	-0.034176	-0.000006	-0.00000430	0.08119785	-0.00006136
6508901	42583.	0.010595	-0.034234	-0.000005	-0.00000430	0.08133428	-0.00006141
6508901	42584.	0.010612	-0.034291	-0.000005	-0.00000431	0.08147093	-0.00006145
6508901	42585.	0.010630	-0.034349	-0.000004	-0.00000431	0.08160757	-0.00006149

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42586.	0.010646	-0.034406	-0.000004	-0.00000431	0.08174442	-0.00006154
6508901	42587.	0.010663	-0.034463	-0.000004	-0.00000431	0.08188127	-0.00006159
6508901	42588.	0.010681	-0.034520	-0.000005	-0.00000432	0.08201833	-0.00006164
6508901	42589.	0.010699	-0.034578	-0.000006	-0.00000432	0.08215538	-0.00006168
6508901	42590.	0.010716	-0.034636	-0.000006	-0.00000432	0.08229264	-0.00006173
6508901	42591.	0.010733	-0.034694	-0.000006	-0.00000432	0.08242989	-0.00006177
6508901	42592.	0.010751	-0.034752	-0.000006	-0.00000433	0.08256735	-0.00006182
6508901	42593.	0.010770	-0.034810	-0.000006	-0.00000433	0.08270481	-0.00006187
6508901	42594.	0.010788	-0.034869	-0.000006	-0.00000433	0.08284248	-0.00006191
6508901	42595.	0.010806	-0.034927	-0.000006	-0.00000434	0.08298014	-0.00006195
6508901	42596.	0.010824	-0.034984	-0.000006	-0.00000435	0.08311801	-0.00006200
6508901	42597.	0.010842	-0.035042	-0.000005	-0.00000435	0.08325587	-0.00006205
6508901	42598.	0.010860	-0.035100	-0.000006	-0.00000435	0.08339393	-0.00006209
6508901	42599.	0.010877	-0.035158	-0.000006	-0.00000435	0.08353198	-0.00006213
6508901	42600.	0.010895	-0.035217	-0.000007	-0.00000436	0.08367022	-0.00006217
6508901	42601.	0.010912	-0.035275	-0.000007	-0.00000436	0.08380845	-0.00006220
6508901	42602.	0.010931	-0.035334	-0.000008	-0.00000436	0.08394687	-0.00006225
6508901	42603.	0.010949	-0.035392	-0.000008	-0.00000436	0.08408528	-0.00006229
6508901	42604.	0.010968	-0.035451	-0.000008	-0.00000436	-0.41577613	-0.00006233
6508901	42605.	0.010987	-0.035510	-0.000008	-0.00000436	-0.91563753	-0.00006237
6508901	42606.	0.011006	-0.035569	-0.000008	-0.00000437	-0.41549877	-0.00006240
6508901	42607.	0.011025	-0.035627	-0.000007	-0.00000437	0.08463999	-0.00006244
6508901	42608.	0.011044	-0.035686	-0.000007	-0.00000438	0.08477893	-0.00006248
6508901	42609.	0.011062	-0.035744	-0.000006	-0.00000438	0.08491787	-0.00006252
6508901	42610.	0.011081	-0.035803	-0.000006	-0.00000438	0.08505698	-0.00006256
6508901	42611.	0.011099	-0.035861	-0.000006	-0.00000438	0.08519609	-0.00006261
6508901	42612.	0.011117	-0.035920	-0.000007	-0.00000439	0.08533539	-0.00006265
6508901	42613.	0.011134	-0.035979	-0.000007	-0.00000439	0.08547468	-0.00006268
6508901	42614.	0.011153	-0.036038	-0.000007	-0.00000439	0.08561413	-0.00006272
6508901	42615.	0.011172	-0.036097	-0.000007	-0.00000439	0.08575357	-0.00006275
6508901	42616.	0.011191	-0.036157	-0.000007	-0.00000439	0.08589318	-0.00006279
6508901	42617.	0.011210	-0.036216	-0.000007	-0.00000439	0.08603279	-0.00006282
6508901	42618.	0.011230	-0.036275	-0.000007	-0.00000440	0.08617255	-0.00006286
6508901	42619.	0.011249	-0.036333	-0.000006	-0.00000440	0.08631231	-0.00006289
6508901	42620.	0.011268	-0.036392	-0.000006	-0.00000441	0.08645223	-0.00006292

EPOCH	GEOS-A		DRAG PERTURBATIONS			MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION	ECCENTRICITY		
6508901	42621.	0.011287	-0.036451	-0.000006	-0.00000441	0.08659214	-0.00006296
6508901	42622.	0.011305	-0.036510	-0.000006	-0.00000441	0.08673222	-0.00006300
6508901	42623.	0.011323	-0.036568	-0.000006	-0.00000441	0.08687230	-0.00006303
6508901	42624.	0.011342	-0.036627	-0.000006	-0.00000442	0.08701252	-0.00006306
6508901	42625.	0.011360	-0.036686	-0.000006	-0.00000442	0.08715274	-0.00006309
6508901	42626.	0.011378	-0.036745	-0.000006	-0.00000442	0.08729311	-0.00006313
6508901	42627.	0.011396	-0.036804	-0.000006	-0.00000442	0.08743348	-0.00006317
6508901	42628.	0.011415	-0.036864	-0.000006	-0.00000442	0.08757401	-0.00006321
6508901	42629.	0.011434	-0.036924	-0.000005	-0.00000442	0.08771454	-0.00006324
6508901	42630.	0.011453	-0.036983	-0.000005	-0.00000443	0.08785524	-0.00006328
6508901	42631.	0.011473	-0.037041	-0.000005	-0.00000443	0.08799594	-0.00006332
6508901	42632.	0.011493	-0.037100	-0.000005	-0.00000443	0.08813683	-0.00006337
6508901	42633.	0.011513	-0.037159	-0.000005	-0.00000444	0.08827772	-0.00006341
6508901	42634.	0.011532	-0.037218	-0.000005	-0.00000444	-0.41158118	-0.00006345
6508901	42635.	0.011550	-0.037277	-0.000005	-0.00000444	-0.91144007	-0.00006350
6508901	42636.	0.011568	-0.037337	-0.000006	-0.00000445	-0.91129877	-0.00006354
6508901	42637.	0.011586	-0.037396	-0.000007	-0.00000445	-0.91115747	-0.00006358
6508901	42638.	0.011605	-0.037456	-0.000007	-0.00000446	-0.41101597	-0.00006362
6508901	42639.	0.011623	-0.037516	-0.000007	-0.00000446	0.08912552	-0.00006367
6508901	42640.	0.011642	-0.037576	-0.000007	-0.00000446	0.08926719	-0.00006371
6508901	42641.	0.011661	-0.037635	-0.000006	-0.00000445	0.08940885	-0.00006375
6508901	42642.	0.011681	-0.037695	-0.000006	-0.00000446	0.08955067	-0.00006379
6508901	42643.	0.011701	-0.037754	-0.000006	-0.00000446	0.08969249	-0.00006382
6508901	42644.	0.011720	-0.037814	-0.000006	-0.00000446	0.08983447	-0.00006385
6508901	42645.	0.011738	-0.037873	-0.000006	-0.00000446	0.08997644	-0.00006388
6508901	42646.	0.011757	-0.037933	-0.000007	-0.00000447	0.09011858	-0.00006392
6508901	42647.	0.011776	-0.037992	-0.000007	-0.00000447	0.09026072	-0.00006396
6508901	42648.	0.011794	-0.038053	-0.000008	-0.00000447	0.09040302	-0.00006399
6508901	42649.	0.011811	-0.038113	-0.000008	-0.00000447	0.09054532	-0.00006403
6508901	42650.	0.011829	-0.038173	-0.000009	-0.00000448	0.09068778	-0.00006407
6508901	42651.	0.011847	-0.038233	-0.000010	-0.00000448	0.09083024	-0.00006410
6508901	42652.	0.011866	-0.038293	-0.000010	-0.00000448	0.09097286	-0.00006414
6508901	42653.	0.011885	-0.038353	-0.000009	-0.00000448	0.09111547	-0.00006417
6508901	42654.	0.011904	-0.038414	-0.000009	-0.00000448	0.09125825	-0.00006421
6508901	42655.	0.011924	-0.038474	-0.000009	-0.00000448	0.09140103	-0.00006425

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42656.	0.011943	-0.038534	-0.000010	-0.00000449	0.09154399	-0.00006429
6508901	42657.	0.011963	-0.038594	-0.000010	-0.00000449	0.09168695	-0.00006433
6508901	42658.	0.011982	-0.038655	-0.000010	-0.00000450	0.09183009	-0.00006437
6508901	42659.	0.012001	-0.038715	-0.000010	-0.00000450	0.09197322	-0.00006441
6508901	42660.	0.012019	-0.038776	-0.000011	-0.00000450	0.09211655	-0.00006445
6508901	42661.	0.012036	-0.038837	-0.000011	-0.00000450	0.09225988	-0.00006449
6508901	42662.	0.012053	-0.038898	-0.000011	-0.00000450	0.09240340	-0.00006453
6508901	42663.	0.012071	-0.038959	-0.000011	-0.00000450	0.09254691	-0.00006458
6508901	42664.	0.012091	-0.039020	-0.000011	-0.00000450	0.09269063	-0.00006463
6508901	42665.	0.012110	-0.039081	-0.000011	-0.00000450	0.09283434	-0.00006467
6508901	42666.	0.012130	-0.039142	-0.000011	-0.00000451	-0.40702175	-0.00006471
6508901	42667.	0.012150	-0.039202	-0.000010	-0.00000451	-0.90687784	-0.00006476
6508901	42668.	0.012170	-0.039263	-0.000011	-0.00000452	-0.40673372	-0.00006481
6508901	42669.	0.012190	-0.039324	-0.000011	-0.00000452	0.09341041	-0.00006486
6508901	42670.	0.012209	-0.039385	-0.000011	-0.00000452	0.09355474	-0.00006491
6508901	42671.	0.012227	-0.039446	-0.000011	-0.00000452	0.09369907	-0.00006495
6508901	42672.	0.012246	-0.039508	-0.000011	-0.00000452	0.09384360	-0.00006500
6508901	42673.	0.012264	-0.039569	-0.000011	-0.00000452	0.09398813	-0.00006504
6508901	42674.	0.012283	-0.039630	-0.000011	-0.00000453	0.09413287	-0.00006509
6508901	42675.	0.012301	-0.039691	-0.000011	-0.00000453	0.09427761	-0.00006513
6508901	42676.	0.012321	-0.039753	-0.000011	-0.00000453	0.09442257	-0.00006519
6508901	42677.	0.012340	-0.039815	-0.000010	-0.00000453	0.09456753	-0.00006524
6508901	42678.	0.012361	-0.039876	-0.000010	-0.00000454	0.09471271	-0.00006529
6508901	42679.	0.012381	-0.039937	-0.000009	-0.00000454	0.09485788	-0.00006534
6508901	42680.	0.012402	-0.039998	-0.000009	-0.00000455	0.09500329	-0.00006539
6508901	42681.	0.012422	-0.040059	-0.000008	-0.00000455	0.09514871	-0.00006545
6508901	42682.	0.012442	-0.040120	-0.000008	-0.00000455	0.09529437	-0.00006551
6508901	42683.	0.012461	-0.040182	-0.000008	-0.00000455	0.09544003	-0.00006557
6508901	42684.	0.012480	-0.040243	-0.000009	-0.00000456	0.09558597	-0.00006563
6508901	42685.	0.012499	-0.040305	-0.000009	-0.00000456	0.09573190	-0.00006568
6508901	42686.	0.012517	-0.040367	-0.000009	-0.00000457	0.09587809	-0.00006574
6508901	42687.	0.012536	-0.040429	-0.000008	-0.00000457	0.09602428	-0.00006581
6508901	42688.	0.012556	-0.040491	-0.000008	-0.00000457	0.09617075	-0.00006587
6508901	42689.	0.012575	-0.040552	-0.000007	-0.00000457	0.09631721	-0.00006593
6508901	42690.	0.012597	-0.040614	-0.000007	-0.00000458	0.09646396	-0.00006600

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42691.	0.012618	-0.040675	-0.000006	-0.00000458	0.09661070	-0.00006607
6508901	42692.	0.012639	-0.040737	-0.000007	-0.00000459	0.09675775	-0.00006614
6508901	42693.	0.012660	-0.040798	-0.000007	-0.00000460	0.09690479	-0.00006621
6508901	42694.	0.012679	-0.040859	-0.000008	-0.00000461	0.09705217	-0.00006628
6508901	42695.	0.012698	-0.040921	-0.000008	-0.00000461	0.09719955	-0.00006635
6508901	42696.	0.012717	-0.040983	-0.000008	-0.00000462	0.09734727	-0.00006643
6508901	42697.	0.012735	-0.041046	-0.000008	-0.00000462	0.09749498	-0.00006650
6508901	42698.	0.012754	-0.041109	-0.000008	-0.00000463	-0.40235700	-0.00006657
6508901	42699.	0.012773	-0.041171	-0.000008	-0.00000463	-0.90220897	-0.00006664
6508901	42700.	0.012794	-0.041233	-0.000008	-0.00000464	-0.40206064	-0.00006671
6508901	42701.	0.012814	-0.041295	-0.000008	-0.00000464	0.09808769	-0.00006678
6508901	42702.	0.012834	-0.041358	-0.000008	-0.00000464	0.09823634	-0.00006685
6508901	42703.	0.012855	-0.041420	-0.000007	-0.00000465	0.09838498	-0.00006693
6508901	42704.	0.012876	-0.041483	-0.000008	-0.00000466	0.09853396	-0.00006700
6508901	42705.	0.012897	-0.041545	-0.000008	-0.00000467	0.09868293	-0.00006707
6508901	42706.	0.012917	-0.041608	-0.000009	-0.00000468	0.09883222	-0.00006714
6508901	42707.	0.012936	-0.041671	-0.000009	-0.00000468	0.09898151	-0.00006721
6508901	42708.	0.012955	-0.041734	-0.000010	-0.00000469	0.09913112	-0.00006728
6508901	42709.	0.012973	-0.041798	-0.000010	-0.00000469	0.09928072	-0.00006735
6508901	42710.	0.012991	-0.041861	-0.000010	-0.00000470	0.09943063	-0.00006742
6508901	42711.	0.013009	-0.041924	-0.000009	-0.00000470	0.09958055	-0.00006748
6508901	42712.	0.013028	-0.041988	-0.000009	-0.00000470	0.09973075	-0.00006754
6508901	42713.	0.013048	-0.042051	-0.000009	-0.00000470	0.09988094	-0.00006761
6508901	42714.	0.013069	-0.042115	-0.000009	-0.00000471	0.10003143	-0.00006768
6508901	42715.	0.013090	-0.042178	-0.000009	-0.00000472	0.10018191	-0.00006775
6508901	42716.	0.013111	-0.042242	-0.000010	-0.00000473	0.10033270	-0.00006782
6508901	42717.	0.013131	-0.042305	-0.000010	-0.00000473	0.10048348	-0.00006788
6508901	42718.	0.013150	-0.042369	-0.000011	-0.00000474	0.10063456	-0.00006795
6508901	42719.	0.013169	-0.042433	-0.000011	-0.00000475	0.10078564	-0.00006801
6508901	42720.	0.013187	-0.042498	-0.000011	-0.00000476	0.10093704	-0.00006808
6508901	42721.	0.013204	-0.042562	-0.000011	-0.00000476	0.10108845	-0.00006816
6508901	42722.	0.013224	-0.042626	-0.000011	-0.00000477	0.10124015	-0.00006822
6508901	42723.	0.013243	-0.042690	-0.000010	-0.00000477	0.10139185	-0.00006829
6508901	42724.	0.013263	-0.042754	-0.000010	-0.00000477	0.10154385	-0.00006836
6508901	42725.	0.013283	-0.042818	-0.000009	-0.00000477	0.10169585	-0.00006843

EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6508901	42726.	0.013304	-0.042883	-0.000009	-0.00000478	0.10184815	-0.00006850
6508901	42727.	0.013324	-0.042947	-0.000009	-0.00000479	0.10200045	-0.00006856
6508901	42728.	0.013344	-0.043012	-0.000009	-0.00000480	-0.39784695	-0.00006862
6508901	42729.	0.013363	-0.043076	-0.000009	-0.00000480	-0.89769434	-0.00006869
6508901	42730.	0.013382	-0.043141	-0.000010	-0.00000481	-0.89754144	-0.00006875
6508901	42731.	0.013401	-0.043205	-0.000010	-0.00000481	-0.89738855	-0.00006881
6508901	42732.	0.013419	-0.043270	-0.000010	-0.00000482	-0.39723537	-0.00006888
6508901	42733.	0.013437	-0.043335	-0.000009	-0.00000482	0.10291780	-0.00006895
6508901	42734.	0.013456	-0.043400	-0.000009	-0.00000483	0.10307126	-0.00006902
6508901	42735.	0.013475	-0.043465	-0.000008	-0.00000483	0.10322471	-0.00006908
6508901	42736.	0.013494	-0.043530	-0.000008	-0.00000484	0.10337846	-0.00006914
6508901	42737.	0.013514	-0.043595	-0.000007	-0.00000484	0.10353221	-0.00006921
6508901	42738.	0.013535	-0.043659	-0.000007	-0.00000485	0.10368625	-0.00006927
6508901	42739.	0.013555	-0.043723	-0.000006	-0.00000485	0.10384029	-0.00006934
6508901	42740.	0.013576	-0.043788	-0.000006	-0.00000485	0.10399461	-0.00006940
6508901	42741.	0.013597	-0.043853	-0.000006	-0.00000486	0.10414893	-0.00006946
6508901	42742.	0.013616	-0.043919	-0.000007	-0.00000487	0.10430352	-0.00006952
6508901	42743.	0.013636	-0.043984	-0.000007	-0.00000487	0.10445810	-0.00006958
6508901	42744.	0.013654	-0.044049	-0.000007	-0.00000488	0.10461293	-0.00006963
6508901	42745.	0.013672	-0.044114	-0.000006	-0.00000488	0.10476776	-0.00006968
6508901	42746.	0.013691	-0.044180	-0.000006	-0.00000488	0.10492283	-0.00006974
6508901	42747.	0.013710	-0.044245	-0.000005	-0.00000488	0.10507789	-0.00006979
6508901	42748.	0.013731	-0.044310	-0.000005	-0.00000489	0.10523319	-0.00006984
6508901	42749.	0.013752	-0.044375	-0.000005	-0.00000489	0.10538849	-0.00006990
6508901	42750.	0.013773	-0.044440	-0.000005	-0.00000490	0.10554403	-0.00006996
6508901	42751.	0.013795	-0.044505	-0.000005	-0.00000490	0.10569958	-0.00007001
6508901	42752.	0.013816	-0.044571	-0.000006	-0.00000490	0.10585536	-0.00007006
6508901	42753.	0.013837	-0.044636	-0.000006	-0.00000490	0.10601114	-0.00007011
6508901	42754.	0.013857	-0.044702	-0.000007	-0.00000491	0.10616715	-0.00007016
6508901	42755.	0.013877	-0.044768	-0.000007	-0.00000491	0.10632316	-0.00007021
6508901	42756.	0.013896	-0.044834	-0.000007	-0.00000492	0.10647940	-0.00007026
6508901	42757.	0.013915	-0.044899	-0.000006	-0.00000492	0.10663564	-0.00007031
6508901	42758.	0.013935	-0.044965	-0.000006	-0.00000493	0.10679210	-0.00007035
6508901	42759.	0.013955	-0.045031	-0.000005	-0.00000493	0.10694855	-0.00007040
6508901	42760.	0.013976	-0.045097	-0.000006	-0.00000493	-0.39289479	-0.00007045

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42761.	0.013996	-0.045163	-0.000006	-0.00000492	-0.89273813	-0.00007050
6508901	42762.	0.014018	-0.045229	-0.000006	-0.00000493	-0.39258126	-0.00007055
6508901	42763.	0.014039	-0.045294	-0.000006	-0.00000493	0.10757561	-0.00007060
6508901	42764.	0.014060	-0.045361	-0.000007	-0.00000494	0.10773269	-0.00007065
6508901	42765.	0.014081	-0.045427	-0.000008	-0.00000494	0.10788977	-0.00007069
6508901	42766.	0.014102	-0.045494	-0.000008	-0.00000495	0.10804706	-0.00007074
6508901	42767.	0.014123	-0.045560	-0.000008	-0.00000495	0.10820436	-0.00007078
6508901	42768.	0.014142	-0.045627	-0.000009	-0.00000496	0.10836186	-0.00007083
6508901	42769.	0.014162	-0.045693	-0.000009	-0.00000496	0.10851936	-0.00007087
6508901	42770.	0.014181	-0.045760	-0.000008	-0.00000497	0.10867707	-0.00007092
6508901	42771.	0.014200	-0.045826	-0.000007	-0.00000497	0.10883477	-0.00007097
6508901	42772.	0.014220	-0.045893	-0.000007	-0.00000497	0.10899267	-0.00007102
6508901	42773.	0.014240	-0.045959	-0.000007	-0.00000497	0.10915056	-0.00007106
6508901	42774.	0.014262	-0.046026	-0.000008	-0.00000497	0.10930868	-0.00007111
6508901	42775.	0.014283	-0.046092	-0.000008	-0.00000497	0.10946679	-0.00007116
6508901	42776.	0.014304	-0.046160	-0.000009	-0.00000498	0.10962513	-0.00007121
6508901	42777.	0.014325	-0.046227	-0.000009	-0.00000499	0.10978346	-0.00007125
6508901	42778.	0.014345	-0.046294	-0.000009	-0.00000499	0.10994201	-0.00007130
6508901	42779.	0.014365	-0.046361	-0.000009	-0.00000499	0.11010055	-0.00007135
6508901	42780.	0.014384	-0.046429	-0.000009	-0.00000500	0.11025931	-0.00007139
6508901	42781.	0.014403	-0.046496	-0.000008	-0.00000501	0.11041806	-0.00007144
6508901	42782.	0.014422	-0.046563	-0.000008	-0.00000501	0.11057703	-0.00007149
6508901	42783.	0.014442	-0.046630	-0.000008	-0.00000501	0.11073599	-0.00007154
6508901	42784.	0.014462	-0.046697	-0.000008	-0.00000502	0.11089516	-0.00007158
6508901	42785.	0.014482	-0.046763	-0.000008	-0.00000502	0.11105432	-0.00007163
6508901	42786.	0.014503	-0.046830	-0.000008	-0.00000503	0.11121371	-0.00007168
6508901	42787.	0.014523	-0.046898	-0.000008	-0.00000503	0.11137310	-0.00007173
6508901	42788.	0.014544	-0.046966	-0.000008	-0.00000503	0.11153271	-0.00007178
6508901	42789.	0.014564	-0.047033	-0.000008	-0.00000503	0.11169232	-0.00007183
6508901	42790.	0.014585	-0.047101	-0.000008	-0.00000504	-0.38814784	-0.00007188
6508901	42791.	0.014605	-0.047168	-0.000008	-0.00000505	-0.88798800	-0.00007193
6508901	42792.	0.014625	-0.047235	-0.000008	-0.00000506	-0.88782791	-0.00007199
6508901	42793.	0.014645	-0.047303	-0.000008	-0.00000506	-0.88766782	-0.00007205
6508901	42794.	0.014663	-0.047370	-0.000007	-0.00000506	-0.38750748	-0.00007210
6508901	42795.	0.014681	-0.047437	-0.000006	-0.00000507	0.11265285	-0.00007216

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42796.	0.014701	-0.047504	-0.000006	-0.00000507	0.11281344	-0.00007222
6508901	42797.	0.014720	-0.047572	-0.000006	-0.00000507	0.11297403	-0.00007228
6508901	42798.	0.014740	-0.047639	-0.000007	-0.00000507	0.11313487	-0.00007233
6508901	42799.	0.014760	-0.047705	-0.000007	-0.00000507	0.11329572	-0.00007239
6508901	42800.	0.014781	-0.047773	-0.000008	-0.00000508	0.11345682	-0.00007245
6508901	42801.	0.014803	-0.047842	-0.000008	-0.00000509	0.11361792	-0.00007250
6508901	42802.	0.014824	-0.047910	-0.000008	-0.00000510	0.11377928	-0.00007256
6508901	42803.	0.014845	-0.047978	-0.000008	-0.00000510	0.11394063	-0.00007261
6508901	42804.	0.014864	-0.048046	-0.000008	-0.00000511	0.11410223	-0.00007267
6508901	42805.	0.014883	-0.048113	-0.000007	-0.00000511	0.11426383	-0.00007273
6508901	42806.	0.014903	-0.048182	-0.000008	-0.00000512	0.11442567	-0.00007278
6508901	42807.	0.014923	-0.048250	-0.000008	-0.00000512	0.11458751	-0.00007283
6508901	42808.	0.014943	-0.048317	-0.000008	-0.00000512	0.11474959	-0.00007289
6508901	42809.	0.014963	-0.048384	-0.000008	-0.00000512	0.11491166	-0.00007295
6508901	42810.	0.014984	-0.048452	-0.000009	-0.00000513	0.11507399	-0.00007300
6508901	42811.	0.015005	-0.048521	-0.000009	-0.00000513	0.11523632	-0.00007306
6508901	42812.	0.015028	-0.048589	-0.000010	-0.00000514	0.11539890	-0.00007311
6508901	42813.	0.015050	-0.048658	-0.000011	-0.00000514	0.11556148	-0.00007316
6508901	42814.	0.015072	-0.048727	-0.000011	-0.00000515	0.11572430	-0.00007321
6508901	42815.	0.015093	-0.048796	-0.000011	-0.00000515	0.11588713	-0.00007327
6508901	42816.	0.015115	-0.048865	-0.000011	-0.00000516	0.11605020	-0.00007333
6508901	42817.	0.015136	-0.048934	-0.000010	-0.00000516	0.11621326	-0.00007339
6508901	42818.	0.015157	-0.049003	-0.000010	-0.00000516	0.11637657	-0.00007345
6508901	42819.	0.015178	-0.049071	-0.000010	-0.00000517	0.11653988	-0.00007350
6508901	42820.	0.015199	-0.049140	-0.000011	-0.00000518	0.11670344	-0.00007355
6508901	42821.	0.015220	-0.049209	-0.000012	-0.00000518	0.11686700	-0.00007361
6508901	42822.	0.015242	-0.049278	-0.000013	-0.00000519	-0.38296921	-0.00007366
6508901	42823.	0.015264	-0.049347	-0.000013	-0.00000519	-0.88280541	-0.00007371
6508901	42824.	0.015288	-0.049417	-0.000014	-0.00000519	-0.88264137	-0.00007377
6508901	42825.	0.015311	-0.049486	-0.000014	-0.00000519	-0.88247733	-0.00007382
6508901	42826.	0.015335	-0.049556	-0.000014	-0.00000520	-0.38231305	-0.00007387
6508901	42827.	0.015358	-0.049627	-0.000013	-0.00000520	0.11785123	-0.00007393
6508901	42828.	0.015381	-0.049697	-0.000013	-0.00000521	0.11801575	-0.00007399
6508901	42829.	0.015403	-0.049766	-0.000013	-0.00000522	0.11818026	-0.00007404
6508901	42830.	0.015425	-0.049836	-0.000013	-0.00000522	0.11834502	-0.00007409

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42831.	0.015446	-0.049905	-0.000012	-0.00000522	0.11850977	-0.00007415
6508901	42832.	0.015469	-0.049974	-0.000013	-0.00000523	0.11867476	-0.00007420
6508901	42833.	0.015491	-0.050044	-0.000013	-0.00000523	0.11883975	-0.00007425
6508901	42834.	0.015513	-0.050114	-0.000013	-0.00000524	0.11900497	-0.00007430
6508901	42835.	0.015536	-0.050184	-0.000013	-0.00000524	0.11917019	-0.00007435
6508901	42836.	0.015560	-0.050255	-0.000013	-0.00000525	0.11933565	-0.00007440
6508901	42837.	0.015584	-0.050325	-0.000013	-0.00000525	0.11950110	-0.00007446
6508901	42838.	0.015607	-0.050396	-0.000013	-0.00000526	0.11966679	-0.00007452
6508901	42839.	0.015630	-0.050466	-0.000012	-0.00000526	0.11983248	-0.00007457
6508901	42840.	0.015653	-0.050536	-0.000012	-0.00000527	0.11999841	-0.00007462
6508901	42841.	0.015676	-0.050606	-0.000011	-0.00000528	0.12016433	-0.00007467
6508901	42842.	0.015698	-0.050676	-0.000011	-0.00000528	0.12033049	-0.00007473
6508901	42843.	0.015719	-0.050746	-0.000010	-0.00000528	0.12049665	-0.00007478
6508901	42844.	0.015741	-0.050816	-0.000010	-0.00000529	0.12066305	-0.00007484
6508901	42845.	0.015762	-0.050886	-0.000010	-0.00000530	0.12082945	-0.00007489
6508901	42846.	0.015784	-0.050956	-0.000010	-0.00000530	0.12099609	-0.00007494
6508901	42847.	0.015806	-0.051026	-0.000010	-0.00000530	0.12116274	-0.00007499
6508901	42848.	0.015829	-0.051097	-0.000010	-0.00000531	0.12132962	-0.00007505
6508901	42849.	0.015851	-0.051167	-0.000010	-0.00000531	0.12149650	-0.00007510
6508901	42850.	0.015874	-0.051238	-0.000010	-0.00000532	0.12166363	-0.00007515
6508901	42851.	0.015897	-0.051308	-0.000009	-0.00000532	0.12183075	-0.00007521
6508901	42852.	0.015920	-0.051379	-0.000009	-0.00000533	0.12199811	-0.00007527
6508901	42853.	0.015942	-0.051449	-0.000008	-0.00000534	0.12216546	-0.00007532
6508901	42854.	0.015963	-0.051519	-0.000007	-0.00000535	-0.37766695	-0.00007537
6508901	42855.	0.015983	-0.051588	-0.000006	-0.00000535	-0.87749937	-0.00007542
6508901	42856.	0.016003	-0.051659	-0.000007	-0.00000536	-0.37733155	-0.00007547
6508901	42857.	0.016024	-0.051729	-0.000007	-0.00000536	0.12283627	-0.00007552
6508901	42858.	0.016045	-0.051800	-0.000008	-0.00000537	0.12300434	-0.00007558
6508901	42859.	0.016065	-0.051870	-0.000008	-0.00000537	0.12317241	-0.00007563
6508901	42860.	0.016088	-0.051941	-0.000008	-0.00000537	0.12334073	-0.00007569
6508901	42861.	0.016110	-0.052012	-0.000008	-0.00000537	0.12350904	-0.00007575
6508901	42862.	0.016132	-0.052083	-0.000008	-0.00000538	0.12367760	-0.00007581
6508901	42863.	0.016154	-0.052153	-0.000007	-0.00000539	0.12384615	-0.00007586
6508901	42864.	0.016176	-0.052224	-0.000007	-0.00000539	0.12401495	-0.00007592
6508901	42865.	0.016197	-0.052295	-0.000006	-0.00000539	0.12418375	-0.00007597

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42866.	0.016218	-0.052366	-0.000007	-0.00000540	0.12435281	-0.00007602
6508901	42867.	0.016239	-0.052436	-0.000008	-0.00000541	0.12452186	-0.00007608
6508901	42868.	0.016260	-0.052507	-0.000008	-0.00000541	0.12469115	-0.00007614
6508901	42869.	0.016281	-0.052578	-0.000008	-0.00000541	0.12486044	-0.00007619
6508901	42870.	0.016303	-0.052650	-0.000009	-0.00000542	0.12502996	-0.00007624
6508901	42871.	0.016324	-0.052721	-0.000010	-0.00000542	0.12519949	-0.00007628
6508901	42872.	0.016346	-0.052793	-0.000010	-0.00000542	0.12536925	-0.00007634
6508901	42873.	0.016367	-0.052864	-0.000010	-0.00000542	0.12553900	-0.00007639
6508901	42874.	0.016390	-0.052937	-0.000010	-0.00000543	0.12570898	-0.00007644
6508901	42875.	0.016413	-0.053009	-0.000010	-0.00000543	0.12587895	-0.00007649
6508901	42876.	0.016435	-0.053080	-0.000010	-0.00000543	0.12604913	-0.00007653
6508901	42877.	0.016457	-0.053151	-0.000009	-0.00000543	0.12621932	-0.00007658
6508901	42878.	0.016479	-0.053223	-0.000009	-0.00000544	0.12638971	-0.00007663
6508901	42879.	0.016501	-0.053294	-0.000009	-0.00000544	0.12656010	-0.00007667
6508901	42880.	0.016523	-0.053367	-0.000011	-0.00000544	0.12673070	-0.00007671
6508901	42881.	0.016544	-0.053439	-0.000012	-0.00000544	0.12690129	-0.00007676
6508901	42882.	0.016566	-0.053511	-0.000012	-0.00000544	0.12707209	-0.00007681
6508901	42883.	0.016588	-0.053583	-0.000012	-0.00000543	0.12724288	-0.00007685
6508901	42884.	0.016610	-0.053656	-0.000013	-0.00000544	-0.37258613	-0.00007689
6508901	42885.	0.016633	-0.053729	-0.000013	-0.00000544	-0.87241514	-0.00007693
6508901	42886.	0.016656	-0.053802	-0.000012	-0.00000544	-0.87224397	-0.00007698
6508901	42887.	0.016679	-0.053874	-0.000011	-0.00000544	-0.87207280	-0.00007702
6508901	42888.	0.016702	-0.053946	-0.000011	-0.00000545	-0.37190144	-0.00007706
6508901	42889.	0.016725	-0.054017	-0.000010	-0.00000545	0.12826991	-0.00007710
6508901	42890.	0.016747	-0.054090	-0.000011	-0.00000546	0.12844145	-0.00007714
6508901	42891.	0.016769	-0.054163	-0.000011	-0.00000546	0.12861299	-0.00007718
6508901	42892.	0.016791	-0.054236	-0.000011	-0.00000546	0.12878470	-0.00007722
6508901	42893.	0.016813	-0.054308	-0.000011	-0.00000546	0.12895642	-0.00007726
6508901	42894.	0.016836	-0.054381	-0.000012	-0.00000546	0.12912832	-0.00007730
6508901	42895.	0.016858	-0.054454	-0.000012	-0.00000545	0.12930022	-0.00007733
6508901	42896.	0.016880	-0.054527	-0.000011	-0.00000545	0.12947228	-0.00007737
6508901	42897.	0.016902	-0.054600	-0.000010	-0.00000545	0.12964434	-0.00007741
6508901	42898.	0.016925	-0.054673	-0.000010	-0.00000546	0.12981657	-0.00007745
6508901	42899.	0.016948	-0.054745	-0.000009	-0.00000546	0.12998880	-0.00007749
6508901	42900.	0.016972	-0.054817	-0.000008	-0.00000546	0.13016120	-0.00007753

EPOCH	GEOS-A		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE	NODE	INCLINATION				
6508901	42901.	0.016995	-0.054889	-0.000007	-0.00000546	0.13033359	-0.00007757
6508901	42902.	0.017018	-0.054961	-0.000008	-0.00000546	0.13050615	-0.00007760
6508901	42903.	0.017040	-0.055034	-0.000008	-0.00000546	0.13067872	-0.00007764
6508901	42904.	0.017062	-0.055107	-0.000008	-0.00000547	0.13085146	-0.00007768
6508901	42905.	0.017083	-0.055180	-0.000008	-0.00000547	0.13102420	-0.00007772
6508901	42906.	0.017105	-0.055253	-0.000008	-0.00000547	0.13119710	-0.00007776
6508901	42907.	0.017126	-0.055326	-0.000007	-0.00000547	0.13137000	-0.00007779
6508901	42908.	0.017149	-0.055399	-0.000007	-0.00000547	0.13154306	-0.00007782
6508901	42909.	0.017172	-0.055472	-0.000007	-0.00000547	0.13171611	-0.00007785
6508901	42910.	0.017196	-0.055545	-0.000006	-0.00000548	0.13188930	-0.00007789
6508901	42911.	0.017219	-0.055618	-0.000005	-0.00000548	0.13206249	-0.00007792
6508901	42912.	0.017242	-0.055691	-0.000005	-0.00000548	0.13223583	-0.00007795
6508901	42913.	0.017265	-0.055763	-0.000004	-0.00000548	0.13240917	-0.00007799
6508901	42914.	0.017287	-0.055836	-0.000005	-0.00000548	0.13258266	-0.00007803
6508901	42915.	0.017310	-0.055908	-0.000005	-0.00000548	0.13275615	-0.00007806
6508901	42916.	0.017332	-0.055981	-0.000006	-0.00000549	-0.36707020	-0.00007809
6508901	42917.	0.017353	-0.056053	-0.000006	-0.00000549	-0.86689656	-0.00007812
6508901	42918.	0.017375	-0.056127	-0.000006	-0.00000549	-0.86672278	-0.00007816
6508901	42919.	0.017398	-0.056201	-0.000006	-0.00000549	-0.86654899	-0.00007819
6508901	42920.	0.017421	-0.056274	-0.000006	-0.00000549	-0.36637506	-0.00007822
6508901	42921.	0.017443	-0.056347	-0.000005	-0.00000549	0.13379888	-0.00007825
6508901	42922.	0.017467	-0.056420	-0.000005	-0.00000549	0.13397296	-0.00007828
6508901	42923.	0.017490	-0.056493	-0.000004	-0.00000549	0.13414703	-0.00007831
6508901	42924.	0.017513	-0.056566	-0.000005	-0.00000550	0.13432125	-0.00007835
6508901	42925.	0.017537	-0.056639	-0.000005	-0.00000550	0.13449546	-0.00007838
6508901	42926.	0.017560	-0.056712	-0.000005	-0.00000551	0.13466982	-0.00007842
6508901	42927.	0.017583	-0.056785	-0.000005	-0.00000551	0.13484417	-0.00007845
6508901	42928.	0.017604	-0.056859	-0.000006	-0.00000551	0.13501867	-0.00007848
6508901	42929.	0.017625	-0.056932	-0.000007	-0.00000551	0.13519317	-0.00007851
6508901	42930.	0.017647	-0.057006	-0.000008	-0.00000551	0.13536783	-0.00007854
6508901	42931.	0.017669	-0.057080	-0.000008	-0.00000551	0.13554248	-0.00007856
6508901	42932.	0.017692	-0.057154	-0.000008	-0.00000551	0.13571726	-0.00007860
6508901	42933.	0.017714	-0.057228	-0.000008	-0.00000551	0.13589204	-0.00007863
6508901	42934.	0.017739	-0.057302	-0.000008	-0.00000551	0.13606695	-0.00007866
6508901	42935.	0.017763	-0.057375	-0.000007	-0.00000551	0.13624187	-0.00007869

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	42936.	0.017788	-0.057449	-0.000007	-0.00000552	0.13641691	-0.00007873
6508901	42937.	0.017812	-0.057522	-0.000007	-0.00000552	0.13659196	-0.00007876
6508901	42938.	0.017835	-0.057596	-0.000008	-0.00000553	0.13676716	-0.00007879
6508901	42939.	0.017858	-0.057670	-0.000008	-0.00000553	0.13694235	-0.00007881
6508901	42940.	0.017879	-0.057744	-0.000009	-0.00000553	0.13711768	-0.00007884
6508901	42941.	0.017901	-0.057818	-0.000009	-0.00000552	0.13729301	-0.00007888
6508901	42942.	0.017923	-0.057893	-0.000010	-0.00000552	0.13746849	-0.00007891
6508901	42943.	0.017945	-0.057967	-0.000010	-0.00000551	0.13764396	-0.00007894
6508901	42944.	0.017969	-0.058042	-0.000009	-0.00000552	0.13781955	-0.00007897
6508901	42945.	0.017993	-0.058116	-0.000008	-0.00000552	0.13799515	-0.00007900
6508901	42946.	0.018018	-0.058190	-0.000008	-0.00000552	-0.36182912	-0.00007903
6508901	42947.	0.018043	-0.058264	-0.000008	-0.00000552	-0.86165339	-0.00007906
6508901	42948.	0.018067	-0.058338	-0.000008	-0.00000552	-0.86147752	-0.00007909
6508901	42949.	0.018091	-0.058411	-0.000008	-0.00000552	-0.86130165	-0.00007912
6508901	42950.	0.018115	-0.058486	-0.000009	-0.00000552	-0.86112563	-0.00007916
6508901	42951.	0.018139	-0.058560	-0.000009	-0.00000552	-0.86094960	-0.00007919
6508901	42952.	0.018161	-0.058634	-0.000010	-0.00000552	-0.36077343	-0.00007923
6508901	42953.	0.018183	-0.058709	-0.000010	-0.00000552	0.13940274	-0.00007926
6508901	42954.	0.018205	-0.058784	-0.000010	-0.00000552	0.13957906	-0.00007929
6508901	42955.	0.018228	-0.058859	-0.000009	-0.00000552	0.13975538	-0.00007932
6508901	42956.	0.018251	-0.058933	-0.000009	-0.00000552	0.13993186	-0.00007936
6508901	42957.	0.018275	-0.059007	-0.000009	-0.00000552	0.14010833	-0.00007939
6508901	42958.	0.018300	-0.059081	-0.000009	-0.00000552	0.14028495	-0.00007943
6508901	42959.	0.018326	-0.059155	-0.000008	-0.00000552	0.14046157	-0.00007947
6508901	42960.	0.018352	-0.059230	-0.000008	-0.00000552	0.14063835	-0.00007951
6508901	42961.	0.018377	-0.059304	-0.000007	-0.00000552	0.14081513	-0.00007954
6508901	42962.	0.018402	-0.059378	-0.000008	-0.00000553	0.14099208	-0.00007958
6508901	42963.	0.018426	-0.059452	-0.000008	-0.00000553	0.14116903	-0.00007962
6508901	42964.	0.018448	-0.059527	-0.000009	-0.00000553	0.14134615	-0.00007966
6508901	42965.	0.018470	-0.059602	-0.000009	-0.00000553	0.14152327	-0.00007969
6508901	42966.	0.018493	-0.059677	-0.000009	-0.00000553	0.14170056	-0.00007972
6508901	42967.	0.018515	-0.059752	-0.000009	-0.00000553	0.14187785	-0.00007976
6508901	42968.	0.018540	-0.059827	-0.000009	-0.00000553	0.14205530	-0.00007980
6508901	42969.	0.018564	-0.059901	-0.000008	-0.00000553	0.14223274	-0.00007983
6508901	42970.	0.018590	-0.059975	-0.000008	-0.00000554	0.14241035	-0.00007987

EPOCH	GEOS-A		DRAG PERTURBATIONS			MEAN ANOMALY	A
	PERIGEE	NODE	INCLINATION	ECCENTRICITY			
6508901	42971.	0.018615	-0.060049	-0.000008	-0.00000554	0.14258795	-0.00007991
6508901	42972.	0.018640	-0.060123	-0.000009	-0.00000554	0.14276572	-0.00007995
6508901	42973.	0.018666	-0.060198	-0.000009	-0.00000553	0.14294349	-0.00007999
6508901	42974.	0.018689	-0.060273	-0.000010	-0.00000554	0.14312144	-0.00008003
6508901	42975.	0.018712	-0.060348	-0.000011	-0.00000555	0.14329939	-0.00008007
6508901	42976.	0.018734	-0.060423	-0.000011	-0.00000555	0.14347751	-0.00008011
6508901	42977.	0.018757	-0.060499	-0.000011	-0.00000555	0.14365564	-0.00008014
6508901	42978.	0.018779	-0.060574	-0.000011	-0.00000555	-0.35616606	-0.00008018
6508901	42979.	0.018801	-0.060650	-0.000011	-0.00000555	-0.85598776	-0.00008021
6508901	42980.	0.018825	-0.060725	-0.000011	-0.00000555	-0.85580931	-0.00008025
6508901	42981.	0.018849	-0.060800	-0.000010	-0.00000555	-0.85563086	-0.00008029
6508901	42982.	0.018874	-0.060875	-0.000011	-0.00000556	-0.35545225	-0.00008033
6508901	42983.	0.018899	-0.060950	-0.000011	-0.00000556	0.14472636	-0.00008036
6508901	42984.	0.018924	-0.061025	-0.000012	-0.00000556	0.14490513	-0.00008040
6508901	42985.	0.018948	-0.061100	-0.000012	-0.00000556	0.14508390	-0.00008043
6508901	42986.	0.018972	-0.061176	-0.000013	-0.00000557	0.14526284	-0.00008047
6508901	42987.	0.018995	-0.061252	-0.000014	-0.00000557	0.14544178	-0.00008050
6508901	42988.	0.019016	-0.061328	-0.000015	-0.00000558	0.14562089	-0.00008054
6508901	42989.	0.019037	-0.061404	-0.000015	-0.00000558	0.14579999	-0.00008058
6508901	42990.	0.019059	-0.061480	-0.000015	-0.00000558	0.14597927	-0.00008061
6508901	42991.	0.019080	-0.061556	-0.000014	-0.00000558	0.14615854	-0.00008065
6508901	42992.	0.019103	-0.061632	-0.000014	-0.00000558	0.14633797	-0.00008069
6508901	42993.	0.019126	-0.061708	-0.000014	-0.00000559	0.14651739	-0.00008072
6508901	42994.	0.019150	-0.061783	-0.000014	-0.00000559	0.14669697	-0.00008076
6508901	42995.	0.019174	-0.061859	-0.000013	-0.00000559	0.14687655	-0.00008080
6508901	42996.	0.019199	-0.061935	-0.000014	-0.00000560	0.14705630	-0.00008084
6508901	42997.	0.019223	-0.062011	-0.000015	-0.00000560	0.14723605	-0.00008087
6508901	42998.	0.019247	-0.062088	-0.000016	-0.00000561	0.14741597	-0.00008091
6508901	42999.	0.019270	-0.062165	-0.000016	-0.00000561	0.14759589	-0.00008094
6508901	43000.	0.019292	-0.062241	-0.000016	-0.00000562	0.14777599	-0.00008098
6508901	43001.	0.019313	-0.062318	-0.000015	-0.00000562	0.14795608	-0.00008102
6508901	43002.	0.019335	-0.062395	-0.000015	-0.00000562	0.14813633	-0.00008106
6508901	43003.	0.019356	-0.062471	-0.000015	-0.00000562	0.14831658	-0.00008109
6508901	43004.	0.019379	-0.062547	-0.000014	-0.00000562	0.14849698	-0.00008113
6508901	43005.	0.019402	-0.062623	-0.000012	-0.00000562	0.14867738	-0.00008116

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43006.	0.019426	-0.062700	-0.000012	-0.00000563	0.14885793	-0.00008120
6508901	43007.	0.019449	-0.062776	-0.000012	-0.00000563	0.14903847	-0.00008123
6508901	43008.	0.019473	-0.062852	-0.000013	-0.00000563	0.14921917	-0.00008127
6508901	43009.	0.019496	-0.062928	-0.000013	-0.00000562	0.14939986	-0.00008130
6508901	43010.	0.019519	-0.063005	-0.000013	-0.00000563	-0.35041929	-0.00008133
6508901	43011.	0.019542	-0.063082	-0.000013	-0.00000563	-0.85023843	-0.00008136
6508901	43012.	0.019564	-0.063158	-0.000013	-0.00000564	-0.85005743	-0.00008140
6508901	43013.	0.019585	-0.063234	-0.000013	-0.00000564	-0.84987642	-0.00008143
6508901	43014.	0.019607	-0.063311	-0.000012	-0.00000565	-0.34969525	-0.00008147
6508901	43015.	0.019628	-0.063388	-0.000010	-0.00000565	0.15048591	-0.00008150
6508901	43016.	0.019651	-0.063464	-0.000009	-0.00000565	0.15066722	-0.00008154
6508901	43017.	0.019674	-0.063540	-0.000008	-0.00000565	0.15084853	-0.00008157
6508901	43018.	0.019699	-0.063616	-0.000008	-0.00000565	0.15102999	-0.00008161
6508901	43019.	0.019723	-0.063692	-0.000008	-0.00000565	0.15121144	-0.00008164
6508901	43020.	0.019747	-0.063768	-0.000009	-0.00000565	0.15139306	-0.00008167
6508901	43021.	0.019770	-0.063844	-0.000009	-0.00000565	0.15157467	-0.00008171
6508901	43022.	0.019793	-0.063921	-0.000009	-0.00000565	0.15175644	-0.00008174
6508901	43023.	0.019817	-0.063998	-0.000009	-0.00000565	0.15193821	-0.00008177
6508901	43024.	0.019839	-0.064074	-0.000009	-0.00000566	0.15212014	-0.00008181
6508901	43025.	0.019861	-0.064151	-0.000008	-0.00000566	0.15230206	-0.00008185
6508901	43026.	0.019885	-0.064227	-0.000008	-0.00000566	0.15248414	-0.00008189
6508901	43027.	0.019908	-0.064304	-0.000007	-0.00000566	0.15266622	-0.00008192
6508901	43028.	0.019931	-0.064380	-0.000007	-0.00000566	0.15284846	-0.00008196
6508901	43029.	0.019955	-0.064456	-0.000006	-0.00000565	0.15303069	-0.00008199
6508901	43030.	0.019980	-0.064532	-0.000007	-0.00000565	0.15321308	-0.00008202
6508901	43031.	0.020005	-0.064609	-0.000007	-0.00000565	0.15339547	-0.00008206
6508901	43032.	0.020030	-0.064685	-0.000008	-0.00000566	0.15357802	-0.00008210
6508901	43033.	0.020054	-0.064762	-0.000009	-0.00000566	0.15376058	-0.00008213
6508901	43034.	0.020078	-0.064839	-0.000010	-0.00000567	0.15394331	-0.00008217
6508901	43035.	0.020102	-0.064916	-0.000010	-0.00000567	0.15412604	-0.00008221
6508901	43036.	0.020126	-0.064994	-0.000010	-0.00000568	0.15430893	-0.00008225
6508901	43037.	0.020149	-0.065071	-0.000009	-0.00000568	0.15449182	-0.00008229
6508901	43038.	0.020172	-0.065148	-0.000009	-0.00000568	0.15467489	-0.00008233
6508901	43039.	0.020196	-0.065225	-0.000009	-0.00000568	0.15485795	-0.00008237
6508901	43040.	0.020221	-0.065302	-0.000009	-0.00000568	-0.34495883	-0.00008241

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43041.	0.020245	-0.065378	-0.000008	-0.00000568	-0.84477560	-0.00008244
6508901	43042.	0.020270	-0.065455	-0.000009	-0.00000569	-0.84459218	-0.00008249
6508901	43043.	0.020296	-0.065533	-0.000010	-0.00000569	-0.84440876	-0.00008253
6508901	43044.	0.020322	-0.065611	-0.000011	-0.00000569	-0.84422516	-0.00008257
6508901	43045.	0.020347	-0.065688	-0.000012	-0.00000569	-0.84404155	-0.00008261
6508901	43046.	0.020372	-0.065766	-0.000013	-0.00000570	-0.34385776	-0.00008265
6508901	43047.	0.020396	-0.065844	-0.000013	-0.00000570	0.15632604	-0.00008269
6508901	43048.	0.020420	-0.065923	-0.000013	-0.00000571	0.15651001	-0.00008273
6508901	43049.	0.020443	-0.066001	-0.000013	-0.00000571	0.15669399	-0.00008278
6508901	43050.	0.020467	-0.066079	-0.000012	-0.00000572	0.15687815	-0.00008282
6508901	43051.	0.020491	-0.066157	-0.000011	-0.00000572	0.15706230	-0.00008286
6508901	43052.	0.020516	-0.066234	-0.000011	-0.00000572	0.15724663	-0.00008290
6508901	43053.	0.020540	-0.066312	-0.000011	-0.00000571	0.15743097	-0.00008294
6508901	43054.	0.020566	-0.066390	-0.000012	-0.00000572	0.15761550	-0.00008298
6508901	43055.	0.020592	-0.066468	-0.000012	-0.00000572	0.15780002	-0.00008302
6508901	43056.	0.020617	-0.066546	-0.000013	-0.00000573	0.15798474	-0.00008307
6508901	43057.	0.020642	-0.066625	-0.000013	-0.00000573	0.15816945	-0.00008311
6508901	43058.	0.020667	-0.066704	-0.000013	-0.00000574	0.15835437	-0.00008315
6508901	43059.	0.020691	-0.066783	-0.000013	-0.00000574	0.15853928	-0.00008319
6508901	43060.	0.020716	-0.066861	-0.000013	-0.00000575	0.15872439	-0.00008324
6508901	43061.	0.020740	-0.066939	-0.000012	-0.00000575	0.15890949	-0.00008328
6508901	43062.	0.020764	-0.067018	-0.000011	-0.00000575	0.15909479	-0.00008333
6508901	43063.	0.020787	-0.067097	-0.000010	-0.00000575	0.15928009	-0.00008337
6508901	43064.	0.020811	-0.067175	-0.000009	-0.00000575	0.15946558	-0.00008342
6508901	43065.	0.020835	-0.067253	-0.000008	-0.00000575	0.15965107	-0.00008346
6508901	43066.	0.020860	-0.067331	-0.000009	-0.00000576	0.15983676	-0.00008351
6508901	43067.	0.020884	-0.067409	-0.000009	-0.00000576	0.16002245	-0.00008355
6508901	43068.	0.020909	-0.067488	-0.000010	-0.00000576	0.16020835	-0.00008360
6508901	43069.	0.020934	-0.067566	-0.000010	-0.00000576	0.16039425	-0.00008365
6508901	43070.	0.020959	-0.067645	-0.000010	-0.00000577	0.16058036	-0.00008370
6508901	43071.	0.020983	-0.067724	-0.000009	-0.00000578	0.16076648	-0.00008375
6508901	43072.	0.021006	-0.067802	-0.000009	-0.00000578	-0.33904719	-0.00008379
6508901	43073.	0.021030	-0.067881	-0.000008	-0.00000578	-0.83886085	-0.00008384
6508901	43074.	0.021053	-0.067960	-0.000007	-0.00000579	-0.83867432	-0.00008388
6508901	43075.	0.021076	-0.068038	-0.000005	-0.00000579	-0.83848779	-0.00008392

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43076.	0.021099	-0.068116	-0.000005	-0.00000579	-0.33830106	-0.00008397
6508901	43077.	0.021121	-0.068194	-0.000004	-0.00000579	0.16188567	-0.00008402
6508901	43078.	0.021146	-0.068272	-0.000005	-0.00000579	0.16207261	-0.00008407
6508901	43079.	0.021170	-0.068351	-0.000005	-0.00000579	0.16225955	-0.00008412
6508901	43080.	0.021195	-0.068430	-0.000006	-0.00000579	0.16244670	-0.00008416
6508901	43081.	0.021219	-0.068509	-0.000006	-0.00000579	0.16263385	-0.00008421
6508901	43082.	0.021244	-0.068588	-0.000006	-0.00000579	0.16282121	-0.00008426
6508901	43083.	0.021268	-0.068666	-0.000005	-0.00000580	0.16300857	-0.00008430
6508901	43084.	0.021291	-0.068745	-0.000005	-0.00000580	0.16319614	-0.00008435
6508901	43085.	0.021314	-0.068824	-0.000004	-0.00000580	0.16338371	-0.00008440
6508901	43086.	0.021336	-0.068903	-0.000004	-0.00000581	0.16357147	-0.00008444
6508901	43087.	0.021359	-0.068981	-0.000003	-0.00000581	0.16375922	-0.00008448
6508901	43088.	0.021382	-0.069060	-0.000004	-0.00000581	0.16394717	-0.00008452
6508901	43089.	0.021405	-0.069138	-0.000004	-0.00000581	0.16413511	-0.00008456
6508901	43090.	0.021429	-0.069217	-0.000005	-0.00000581	0.16432324	-0.00008460
6508901	43091.	0.021452	-0.069295	-0.000005	-0.00000581	0.16451136	-0.00008464
6508901	43092.	0.021477	-0.069375	-0.000006	-0.00000581	0.16469968	-0.00008468
6508901	43093.	0.021502	-0.069454	-0.000007	-0.00000581	0.16488799	-0.00008473
6508901	43094.	0.021528	-0.069534	-0.000007	-0.00000582	0.16507649	-0.00008477
6508901	43095.	0.021553	-0.069614	-0.000007	-0.00000582	0.16526499	-0.00008481
6508901	43096.	0.021578	-0.069694	-0.000007	-0.00000582	0.16545367	-0.00008485
6508901	43097.	0.021602	-0.069773	-0.000007	-0.00000582	0.16564235	-0.00008489
6508901	43098.	0.021626	-0.069852	-0.000007	-0.00000583	0.16583121	-0.00008493
6508901	43099.	0.021649	-0.069931	-0.000006	-0.00000583	0.16602006	-0.00008496
6508901	43100.	0.021672	-0.070010	-0.000007	-0.00000584	0.16620908	-0.00008500
6508901	43101.	0.021696	-0.070090	-0.000007	-0.00000584	0.16639810	-0.00008504
6508901	43102.	0.021721	-0.070170	-0.000008	-0.00000584	-0.33341272	-0.00008508
6508901	43103.	0.021746	-0.070250	-0.000010	-0.00000583	-0.83322353	-0.00008512
6508901	43104.	0.021773	-0.070331	-0.000011	-0.00000584	-0.83303419	-0.00008516
6508901	43105.	0.021800	-0.070411	-0.000011	-0.00000584	-0.83284484	-0.00008519
6508901	43106.	0.021826	-0.070492	-0.000011	-0.00000585	-0.83265533	-0.00008522
6508901	43107.	0.021853	-0.070573	-0.000011	-0.00000585	-0.83246582	-0.00008525
6508901	43108.	0.021878	-0.070653	-0.000010	-0.00000586	-0.33227616	-0.00008529
6508901	43109.	0.021904	-0.070733	-0.000009	-0.00000586	0.16791349	-0.00008533
6508901	43110.	0.021929	-0.070813	-0.000010	-0.00000587	0.16810331	-0.00008537

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43111.	0.021953	-0.070892	-0.000010	-0.00000587	0.16829312	-0.00008540
6508901	43112.	0.021978	-0.070972	-0.000010	-0.00000587	0.16848308	-0.00008543
6508901	43113.	0.022003	-0.071052	-0.000010	-0.00000587	0.16867304	-0.00008546
6508901	43114.	0.022029	-0.071133	-0.000011	-0.00000587	0.16886314	-0.00008549
6508901	43115.	0.022055	-0.071214	-0.000011	-0.00000587	0.16905325	-0.00008552
6508901	43116.	0.022083	-0.071295	-0.000012	-0.00000588	0.16924350	-0.00008555
6508901	43117.	0.022110	-0.071376	-0.000012	-0.00000588	0.16943375	-0.00008559
6508901	43118.	0.022136	-0.071457	-0.000012	-0.00000589	0.16962414	-0.00008563
6508901	43119.	0.022163	-0.071537	-0.000012	-0.00000589	0.16981453	-0.00008566
6508901	43120.	0.022190	-0.071618	-0.000011	-0.00000590	0.17000506	-0.00008569
6508901	43121.	0.022216	-0.071698	-0.000010	-0.00000590	0.17019559	-0.00008572
6508901	43122.	0.022241	-0.071778	-0.000010	-0.00000591	0.17038627	-0.00008575
6508901	43123.	0.022266	-0.071858	-0.000009	-0.00000591	0.17057694	-0.00008578
6508901	43124.	0.022290	-0.071938	-0.000010	-0.00000592	0.17076777	-0.00008581
6508901	43125.	0.022314	-0.072018	-0.000010	-0.00000592	0.17095859	-0.00008584
6508901	43126.	0.022339	-0.072099	-0.000011	-0.00000592	0.17114956	-0.00008588
6508901	43127.	0.022365	-0.072180	-0.000011	-0.00000592	0.17134053	-0.00008591
6508901	43128.	0.022391	-0.072261	-0.000011	-0.00000593	0.17153164	-0.00008595
6508901	43129.	0.022418	-0.072342	-0.000011	-0.00000593	0.17172274	-0.00008598
6508901	43130.	0.022446	-0.072423	-0.000011	-0.00000594	0.17191399	-0.00008601
6508901	43131.	0.022473	-0.072504	-0.000010	-0.00000594	0.17210524	-0.00008604
6508901	43132.	0.022499	-0.072584	-0.000009	-0.00000595	0.17229664	-0.00008607
6508901	43133.	0.022524	-0.072664	-0.000008	-0.00000595	0.17248804	-0.00008610
6508901	43134.	0.022548	-0.072745	-0.000008	-0.00000596	-0.32732043	-0.00008614
6508901	43135.	0.022572	-0.072825	-0.000008	-0.00000596	-0.82712890	-0.00008617
6508901	43136.	0.022596	-0.072905	-0.000010	-0.00000596	-0.82693722	-0.00008620
6508901	43137.	0.022620	-0.072984	-0.000011	-0.00000596	-0.82674555	-0.00008623
6508901	43138.	0.022645	-0.073066	-0.000011	-0.00000597	-0.82655373	-0.00008626
6508901	43139.	0.022670	-0.073147	-0.000011	-0.00000597	-0.82636191	-0.00008629
6508901	43140.	0.022696	-0.073228	-0.000012	-0.00000598	-0.32616996	-0.00008632
6508901	43141.	0.022722	-0.073309	-0.000012	-0.00000598	0.17402199	-0.00008635
6508901	43142.	0.022748	-0.073389	-0.000012	-0.00000598	0.17421409	-0.00008639
6508901	43143.	0.022774	-0.073470	-0.000011	-0.00000598	0.17440618	-0.00008642
6508901	43144.	0.022801	-0.073551	-0.000011	-0.00000599	0.17459841	-0.00008645
6508901	43145.	0.022827	-0.073632	-0.000010	-0.00000599	0.17479064	-0.00008648

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43146.	0.022852	-0.073713	-0.000011	-0.00000599	0.17498302	-0.00008651
6508901	43147.	0.022876	-0.073794	-0.000011	-0.00000599	0.17517539	-0.00008654
6508901	43148.	0.022900	-0.073874	-0.000012	-0.00000600	0.17536791	-0.00008657
6508901	43149.	0.022923	-0.073954	-0.000013	-0.00000600	0.17556043	-0.00008660
6508901	43150.	0.022948	-0.074036	-0.000014	-0.00000600	0.17575309	-0.00008663
6508901	43151.	0.022973	-0.074118	-0.000015	-0.00000600	0.17594575	-0.00008666
6508901	43152.	0.022999	-0.074200	-0.000015	-0.00000600	0.17613854	-0.00008669
6508901	43153.	0.023024	-0.074282	-0.000015	-0.00000599	0.17633133	-0.00008672
6508901	43154.	0.023051	-0.074364	-0.000015	-0.00000599	0.17652425	-0.00008675
6508901	43155.	0.023078	-0.074446	-0.000014	-0.00000599	0.17671717	-0.00008678
6508901	43156.	0.023105	-0.074527	-0.000014	-0.00000600	0.17691021	-0.00008681
6508901	43157.	0.023132	-0.074608	-0.000014	-0.00000600	0.17710326	-0.00008684
6508901	43158.	0.023158	-0.074690	-0.000015	-0.00000600	0.17729645	-0.00008688
6508901	43159.	0.023183	-0.074771	-0.000015	-0.00000600	0.17748963	-0.00008691
6508901	43160.	0.023207	-0.074853	-0.000016	-0.00000600	0.17768296	-0.00008694
6508901	43161.	0.023231	-0.074935	-0.000017	-0.00000601	0.17787629	-0.00008697
6508901	43162.	0.023256	-0.075018	-0.000018	-0.00000600	0.17806975	-0.00008700
6508901	43163.	0.023281	-0.075100	-0.000018	-0.00000600	0.17826322	-0.00008703
6508901	43164.	0.023307	-0.075183	-0.000017	-0.00000600	0.17845682	-0.00008706
6508901	43165.	0.023333	-0.075265	-0.000016	-0.00000600	0.17865043	-0.00008709
6508901	43166.	0.023361	-0.075347	-0.000016	-0.00000600	-0.32115585	-0.00008712
6508901	43167.	0.023388	-0.075429	-0.000015	-0.00000600	-0.82096212	-0.00008715
6508901	43168.	0.023414	-0.075511	-0.000015	-0.00000600	-0.82076826	-0.00008718
6508901	43169.	0.023441	-0.075593	-0.000014	-0.00000600	-0.82057440	-0.00008721
6508901	43170.	0.023466	-0.075675	-0.000014	-0.00000600	-0.32038041	-0.00008724
6508901	43171.	0.023492	-0.075757	-0.000014	-0.00000600	0.17981359	-0.00008726
6508901	43172.	0.023517	-0.075839	-0.000015	-0.00000600	0.18000772	-0.00008730
6508901	43173.	0.023541	-0.075921	-0.000015	-0.00000600	0.18020185	-0.00008733
6508901	43174.	0.023566	-0.076003	-0.000015	-0.00000600	0.18039613	-0.00008736
6508901	43175.	0.023590	-0.076086	-0.000015	-0.00000600	0.18059040	-0.00008739
6508901	43176.	0.023615	-0.076169	-0.000014	-0.00000600	0.18078482	-0.00008743
6508901	43177.	0.023639	-0.076251	-0.000013	-0.00000600	0.18097923	-0.00008746
6508901	43178.	0.023665	-0.076333	-0.000012	-0.00000600	0.18117378	-0.00008749
6508901	43179.	0.023692	-0.076415	-0.000010	-0.00000600	0.18136832	-0.00008752
6508901	43180.	0.023719	-0.076497	-0.000010	-0.00000600	0.18156300	-0.00008755

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43181.	0.023746	-0.076579	-0.000009	-0.00000600	0.18175768	-0.00008758
6508901	43182.	0.023773	-0.076660	-0.000009	-0.00000600	0.18195250	-0.00008762
6508901	43183.	0.023799	-0.076742	-0.000009	-0.00000601	0.18214732	-0.00008765
6508901	43184.	0.023823	-0.076824	-0.000009	-0.00000601	0.18234230	-0.00008768
6508901	43185.	0.023847	-0.076906	-0.000009	-0.00000601	0.18253728	-0.00008771
6508901	43186.	0.023871	-0.076989	-0.000010	-0.00000601	0.18273243	-0.00008775
6508901	43187.	0.023894	-0.077071	-0.000010	-0.00000601	0.18292757	-0.00008779
6508901	43188.	0.023920	-0.077154	-0.000009	-0.00000601	0.18312286	-0.00008782
6508901	43189.	0.023945	-0.077236	-0.000008	-0.00000601	0.18331814	-0.00008785
6508901	43190.	0.023972	-0.077318	-0.000007	-0.00000601	0.18351358	-0.00008789
6508901	43191.	0.023999	-0.077399	-0.000006	-0.00000601	0.18370901	-0.00008793
6508901	43192.	0.024026	-0.077481	-0.000006	-0.00000602	0.18390460	-0.00008797
6508901	43193.	0.024053	-0.077562	-0.000005	-0.00000603	0.18410018	-0.00008800
6508901	43194.	0.024079	-0.077644	-0.000006	-0.00000604	0.18429594	-0.00008803
6508901	43195.	0.024104	-0.077727	-0.000007	-0.00000604	0.18449169	-0.00008807
6508901	43196.	0.024128	-0.077809	-0.000008	-0.00000604	-0.31531237	-0.00008811
6508901	43197.	0.024152	-0.077891	-0.000009	-0.00000604	-0.81511644	-0.00008814
6508901	43198.	0.024175	-0.077974	-0.000009	-0.00000605	-0.81492034	-0.00008818
6508901	43199.	0.024199	-0.078057	-0.000008	-0.00000605	-0.81472424	-0.00008822
6508901	43200.	0.024224	-0.078140	-0.000008	-0.00000605	-0.81452798	-0.00008826
6508901	43201.	0.024249	-0.078222	-0.000008	-0.00000605	-0.81433171	-0.00008830
6508901	43202.	0.024275	-0.078305	-0.000008	-0.00000605	-0.31413529	-0.00008834
6508901	43203.	0.024301	-0.078387	-0.000007	-0.00000605	0.18606113	-0.00008837
6508901	43204.	0.024329	-0.078470	-0.000007	-0.00000606	0.18625771	-0.00008840
6508901	43205.	0.024356	-0.078552	-0.000007	-0.00000606	0.18645429	-0.00008844
6508901	43206.	0.024383	-0.078635	-0.000008	-0.00000607	0.18665105	-0.00008848
6508901	43207.	0.024409	-0.078718	-0.000010	-0.00000607	0.18684782	-0.00008852
6508901	43208.	0.024433	-0.078801	-0.000011	-0.00000608	0.18704477	-0.00008856
6508901	43209.	0.024457	-0.078884	-0.000012	-0.00000608	0.18724171	-0.00008860
6508901	43210.	0.024479	-0.078967	-0.000013	-0.00000608	0.18743886	-0.00008865
6508901	43211.	0.024502	-0.079051	-0.000013	-0.00000608	0.18763600	-0.00008869
6508901	43212.	0.024526	-0.079136	-0.000013	-0.00000608	0.18783334	-0.00008874
6508901	43213.	0.024550	-0.079220	-0.000012	-0.00000608	0.18803067	-0.00008879
6508901	43214.	0.024577	-0.079304	-0.000012	-0.00000608	0.18822820	-0.00008884
6508901	43215.	0.024604	-0.079387	-0.000011	-0.00000608	0.18842572	-0.00008888

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43216.	0.024632	-0.079470	-0.000012	-0.00000609	0.18862346	-0.00008892
6508901	43217.	0.024660	-0.079554	-0.000012	-0.00000609	0.18882119	-0.00008897
6508901	43218.	0.024686	-0.079637	-0.000013	-0.00000609	0.18901914	-0.00008902
6508901	43219.	0.024712	-0.079721	-0.000013	-0.00000609	0.18921709	-0.00008906
6508901	43220.	0.024736	-0.079805	-0.000014	-0.00000610	0.18941527	-0.00008911
6508901	43221.	0.024759	-0.079890	-0.000014	-0.00000610	0.18961344	-0.00008917
6508901	43222.	0.024783	-0.079975	-0.000014	-0.00000610	0.18981183	-0.00008922
6508901	43223.	0.024806	-0.080059	-0.000014	-0.00000610	0.19001022	-0.00008926
6508901	43224.	0.024831	-0.080144	-0.000013	-0.00000610	0.19020883	-0.00008931
6508901	43225.	0.024856	-0.080228	-0.000012	-0.00000610	0.19040744	-0.00008936
6508901	43226.	0.024884	-0.080312	-0.000011	-0.00000610	0.19060627	-0.00008941
6508901	43227.	0.024911	-0.080396	-0.000010	-0.00000610	0.19080509	-0.00008946
6508901	43228.	0.024939	-0.080480	-0.000010	-0.00000610	-0.30899585	-0.00008952
6508901	43229.	0.024967	-0.080563	-0.000009	-0.00000611	-0.80879680	-0.00008958
6508901	43230.	0.024994	-0.080648	-0.000010	-0.00000612	-0.80859749	-0.00008963
6508901	43231.	0.025021	-0.080732	-0.000010	-0.00000612	-0.80839817	-0.00008969
6508901	43232.	0.025047	-0.080817	-0.000011	-0.00000613	-0.80819858	-0.00008976
6508901	43233.	0.025072	-0.080901	-0.000011	-0.00000613	-0.80799899	-0.00008982
6508901	43234.	0.025097	-0.080986	-0.000011	-0.00000613	-0.30779914	-0.00008988
6508901	43235.	0.025121	-0.081071	-0.000010	-0.00000613	0.19240072	-0.00008993
6508901	43236.	0.025147	-0.081156	-0.000008	-0.00000614	0.19260084	-0.00008999
6508901	43237.	0.025172	-0.081240	-0.000007	-0.00000614	0.19280096	-0.00009006
6508901	43238.	0.025201	-0.081324	-0.000006	-0.00000614	0.19300135	-0.00009013
6508901	43239.	0.025230	-0.081408	-0.000004	-0.00000614	0.19320173	-0.00009019
6508901	43240.	0.025261	-0.081491	-0.000004	-0.00000615	0.19340242	-0.00009026
6508901	43241.	0.025292	-0.081575	-0.000004	-0.00000615	0.19360311	-0.00009033
6508901	43242.	0.025319	-0.081660	-0.000005	-0.00000616	0.19380413	-0.00009041
6508901	43243.	0.025347	-0.081744	-0.000005	-0.00000616	0.19400515	-0.00009048
6508901	43244.	0.025373	-0.081829	-0.000006	-0.00000617	0.19420649	-0.00009054
6508901	43245.	0.025398	-0.081914	-0.000006	-0.00000617	0.19440784	-0.00009061
6508901	43246.	0.025423	-0.081999	-0.000006	-0.00000618	0.19460949	-0.00009068
6508901	43247.	0.025448	-0.082084	-0.000005	-0.00000618	0.19481114	-0.00009075
6508901	43248.	0.025475	-0.082169	-0.000004	-0.00000619	0.19501310	-0.00009082
6508901	43249.	0.025502	-0.082253	-0.000003	-0.00000619	0.19521505	-0.00009089
6508901	43250.	0.025531	-0.082338	-0.000003	-0.00000620	0.19541731	-0.00009097

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43251.	0.025561	-0.082422	-0.000002	-0.00000620	0.19561957	-0.00009104
6508901	43252.	0.025590	-0.082506	-0.000003	-0.00000620	0.19582215	-0.00009111
6508901	43253.	0.025620	-0.082591	-0.000003	-0.00000620	0.19602473	-0.00009118
6508901	43254.	0.025648	-0.082676	-0.000004	-0.00000621	0.19622763	-0.00009125
6508901	43255.	0.025676	-0.082761	-0.000005	-0.00000622	0.19643053	-0.00009132
6508901	43256.	0.025701	-0.082847	-0.000006	-0.00000623	0.19663374	-0.00009138
6508901	43257.	0.025727	-0.082933	-0.000007	-0.00000623	0.19683695	-0.00009144
6508901	43258.	0.025752	-0.083019	-0.000007	-0.00000624	0.19704043	-0.00009150
6508901	43259.	0.025776	-0.083105	-0.000007	-0.00000624	0.19724392	-0.00009156
6508901	43260.	0.025802	-0.083191	-0.000006	-0.00000624	-0.30255234	-0.00009162
6508901	43261.	0.025828	-0.083276	-0.000005	-0.00000624	-0.80234860	-0.00009168
6508901	43262.	0.025856	-0.083361	-0.000006	-0.00000624	-0.80214463	-0.00009174
6508901	43263.	0.025884	-0.083447	-0.000006	-0.00000624	-0.80194067	-0.00009179
6508901	43264.	0.025913	-0.083533	-0.000007	-0.00000625	-0.80173646	-0.00009184
6508901	43265.	0.025943	-0.083618	-0.000008	-0.00000625	-0.80153226	-0.00009189
6508901	43266.	0.025971	-0.083704	-0.000010	-0.00000626	-0.30132779	-0.00009195
6508901	43267.	0.025999	-0.083790	-0.000011	-0.00000626	0.19887668	-0.00009201
6508901	43268.	0.026023	-0.083878	-0.000012	-0.00000627	0.19908140	-0.00009206
6508901	43269.	0.026046	-0.083965	-0.000012	-0.00000627	0.19928612	-0.00009211
6508901	43270.	0.026069	-0.084052	-0.000012	-0.00000628	0.19949107	-0.00009216
6508901	43271.	0.026092	-0.084139	-0.000011	-0.00000628	0.19969601	-0.00009221
6508901	43272.	0.026118	-0.084226	-0.000011	-0.00000628	0.19990115	-0.00009225
6508901	43273.	0.026143	-0.084312	-0.000010	-0.00000628	0.20010629	-0.00009229
6508901	43274.	0.026171	-0.084398	-0.000011	-0.00000628	0.20031162	-0.00009234
6508901	43275.	0.026199	-0.084485	-0.000011	-0.00000628	0.20051695	-0.00009239
6508901	43276.	0.026227	-0.084572	-0.000012	-0.00000629	0.20072248	-0.00009243
6508901	43277.	0.026254	-0.084659	-0.000013	-0.00000629	0.20092802	-0.00009247
6508901	43278.	0.026280	-0.084747	-0.000014	-0.00000629	0.20113376	-0.00009252
6508901	43279.	0.026306	-0.084834	-0.000014	-0.00000629	0.20133949	-0.00009256
6508901	43280.	0.026329	-0.084922	-0.000015	-0.00000630	0.20154542	-0.00009260
6508901	43281.	0.026352	-0.085010	-0.000015	-0.00000630	0.20175135	-0.00009264
6508901	43282.	0.026376	-0.085098	-0.000015	-0.00000631	0.20195746	-0.00009268
6508901	43283.	0.026400	-0.085185	-0.000014	-0.00000631	0.20216358	-0.00009272
6508901	43284.	0.026423	-0.085272	-0.000013	-0.00000631	0.20236985	-0.00009276
6508901	43285.	0.026447	-0.085359	-0.000012	-0.00000631	0.20257612	-0.00009279

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43286.	0.026474	-0.085446	-0.000012	-0.00000631	0.20278255	-0.00009282
6508901	43287.	0.026500	-0.085533	-0.000011	-0.00000631	0.20298897	-0.00009286
6508901	43288.	0.026527	-0.085620	-0.000012	-0.00000631	0.20319555	-0.00009290
6508901	43289.	0.026554	-0.085707	-0.000012	-0.00000631	0.20340212	-0.00009293
6508901	43290.	0.026580	-0.085795	-0.000013	-0.00000631	-0.29639115	-0.00009297
6508901	43291.	0.026605	-0.085883	-0.000014	-0.00000632	-0.79618441	-0.00009300
6508901	43292.	0.026629	-0.085971	-0.000014	-0.00000632	-0.79597753	-0.00009303
6508901	43293.	0.026652	-0.086059	-0.000014	-0.00000632	-0.79577064	-0.00009306
6508901	43294.	0.026674	-0.086147	-0.000013	-0.00000632	-0.79556362	-0.00009310
6508901	43295.	0.026696	-0.086234	-0.000012	-0.00000632	-0.79535660	-0.00009313
6508901	43296.	0.026721	-0.086321	-0.000011	-0.00000632	-0.29514944	-0.00009316
6508901	43297.	0.026745	-0.086408	-0.000010	-0.00000632	0.20505771	-0.00009318
6508901	43298.	0.026772	-0.086495	-0.000011	-0.00000632	0.20526500	-0.00009322
6508901	43299.	0.026798	-0.086581	-0.000011	-0.00000632	0.20547228	-0.00009325
6508901	43300.	0.026826	-0.086668	-0.000012	-0.00000632	0.20567971	-0.00009328
6508901	43301.	0.026853	-0.086755	-0.000013	-0.00000632	0.20588714	-0.00009331
6508901	43302.	0.026879	-0.086843	-0.000014	-0.00000632	0.20609472	-0.00009334
6508901	43303.	0.026904	-0.086931	-0.000014	-0.00000632	0.20630229	-0.00009337
6508901	43304.	0.026929	-0.087019	-0.000013	-0.00000633	0.20651000	-0.00009341
6508901	43305.	0.026953	-0.087107	-0.000012	-0.00000633	0.20671771	-0.00009344
6508901	43306.	0.026978	-0.087195	-0.000012	-0.00000633	0.20692555	-0.00009347
6508901	43307.	0.027002	-0.087282	-0.000012	-0.00000632	0.20713339	-0.00009349
6508901	43308.	0.027028	-0.087369	-0.000012	-0.00000632	0.20734134	-0.00009352
6508901	43309.	0.027054	-0.087456	-0.000011	-0.00000632	0.20754929	-0.00009355
6508901	43310.	0.027081	-0.087544	-0.000012	-0.00000632	0.20775737	-0.00009358
6508901	43311.	0.027108	-0.087631	-0.000012	-0.00000632	0.20796544	-0.00009360
6508901	43312.	0.027137	-0.087719	-0.000013	-0.00000632	0.20817364	-0.00009363
6508901	43313.	0.027165	-0.087806	-0.000014	-0.00000632	0.20838184	-0.00009365
6508901	43314.	0.027193	-0.087894	-0.000015	-0.00000632	0.20859017	-0.00009368
6508901	43315.	0.027220	-0.087982	-0.000016	-0.00000632	0.20879850	-0.00009371
6508901	43316.	0.027247	-0.088070	-0.000016	-0.00000633	0.20900696	-0.00009374
6508901	43317.	0.027274	-0.088159	-0.000016	-0.00000634	0.20921541	-0.00009377
6508901	43318.	0.027299	-0.088247	-0.000016	-0.00000634	0.20942399	-0.00009380
6508901	43319.	0.027325	-0.088336	-0.000015	-0.00000634	0.20963257	-0.00009382
6508901	43320.	0.027351	-0.088424	-0.000015	-0.00000634	0.20984128	-0.00009386

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43321.	0.027378	-0.088512	-0.000014	-0.00000633	0.21004998	-0.00009389
6508901	43322.	0.027406	-0.088600	-0.000015	-0.00000633	-0.28974119	-0.00009392
6508901	43323.	0.027434	-0.088687	-0.000015	-0.00000633	-0.78953236	-0.00009395
6508901	43324.	0.027463	-0.088776	-0.000016	-0.00000634	-0.78932339	-0.00009398
6508901	43325.	0.027492	-0.088864	-0.000018	-0.00000634	-0.78911442	-0.00009400
6508901	43326.	0.027521	-0.088954	-0.000019	-0.00000634	-0.78890531	-0.00009403
6508901	43327.	0.027549	-0.089043	-0.000019	-0.00000634	-0.78869619	-0.00009406
6508901	43328.	0.027574	-0.089131	-0.000018	-0.00000635	-0.28848699	-0.00009409
6508901	43329.	0.027599	-0.089219	-0.000017	-0.00000635	0.21172222	-0.00009412
6508901	43330.	0.027626	-0.089307	-0.000016	-0.00000636	0.21193158	-0.00009415
6508901	43331.	0.027653	-0.089396	-0.000015	-0.00000636	0.21214093	-0.00009417
6508901	43332.	0.027680	-0.089484	-0.000015	-0.00000636	0.21235041	-0.00009420
6508901	43333.	0.027707	-0.089572	-0.000015	-0.00000635	0.21255989	-0.00009423
6508901	43334.	0.027736	-0.089661	-0.000015	-0.00000635	0.21276949	-0.00009426
6508901	43335.	0.027764	-0.089749	-0.000015	-0.00000635	0.21297908	-0.00009429
6508901	43336.	0.027793	-0.089838	-0.000016	-0.00000636	0.21318880	-0.00009432
6508901	43337.	0.027822	-0.089927	-0.000017	-0.00000636	0.21339851	-0.00009434
6508901	43338.	0.027851	-0.090017	-0.000016	-0.00000636	0.21360834	-0.00009437
6508901	43339.	0.027881	-0.090107	-0.000016	-0.00000636	0.21381817	-0.00009439
6508901	43340.	0.027909	-0.090196	-0.000015	-0.00000637	0.21402812	-0.00009441
6508901	43341.	0.027937	-0.090285	-0.000014	-0.00000637	0.21423807	-0.00009444
6508901	43342.	0.027964	-0.090374	-0.000013	-0.00000637	0.21444813	-0.00009447
6508901	43343.	0.027990	-0.090463	-0.000012	-0.00000637	0.21465819	-0.00009449
6508901	43344.	0.028017	-0.090551	-0.000011	-0.00000637	0.21486836	-0.00009452
6508901	43345.	0.028043	-0.090639	-0.000010	-0.00000637	0.21507853	-0.00009454
6508901	43346.	0.028070	-0.090728	-0.000010	-0.00000637	0.21528882	-0.00009457
6508901	43347.	0.028097	-0.090816	-0.000010	-0.00000636	0.21549912	-0.00009460
6508901	43348.	0.028126	-0.090904	-0.000011	-0.00000637	0.21570954	-0.00009463
6508901	43349.	0.028155	-0.090993	-0.000011	-0.00000637	0.21591995	-0.00009466
6508901	43350.	0.028184	-0.091082	-0.000011	-0.00000637	0.21613049	-0.00009469
6508901	43351.	0.028212	-0.091171	-0.000010	-0.00000637	0.21634103	-0.00009471
6508901	43352.	0.028239	-0.091260	-0.000009	-0.00000637	-0.28344830	-0.00009474
6508901	43353.	0.028266	-0.091349	-0.000008	-0.00000637	-0.78323764	-0.00009477
6508901	43354.	0.028292	-0.091437	-0.000007	-0.00000637	-0.78302686	-0.00009480
6508901	43355.	0.028317	-0.091526	-0.000006	-0.00000637	-0.78281607	-0.00009482

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43356.	0.028343	-0.091614	-0.000006	-0.00000637	-0.78260516	-0.00009485
6508901	43357.	0.028369	-0.091702	-0.000006	-0.00000636	-0.78239425	-0.00009488
6508901	43358.	0.028396	-0.091791	-0.000007	-0.00000636	-0.78218321	-0.00009491
6508901	43359.	0.028423	-0.091879	-0.000007	-0.00000636	-0.78197217	-0.00009494
6508901	43360.	0.028451	-0.091968	-0.000008	-0.00000636	-0.28176100	-0.00009497
6508901	43361.	0.028479	-0.092057	-0.000008	-0.00000636	0.21845018	-0.00009500
6508901	43362.	0.028507	-0.092147	-0.000008	-0.00000637	0.21866150	-0.00009503
6508901	43363.	0.028535	-0.092236	-0.000008	-0.00000637	0.21887281	-0.00009506
6508901	43364.	0.028562	-0.092325	-0.000007	-0.00000638	0.21908427	-0.00009509
6508901	43365.	0.028589	-0.092414	-0.000006	-0.00000638	0.21929573	-0.00009512
6508901	43366.	0.028615	-0.092502	-0.000006	-0.00000638	0.21950732	-0.00009516
6508901	43367.	0.028641	-0.092591	-0.000006	-0.00000638	0.21971890	-0.00009519
6508901	43368.	0.028667	-0.092680	-0.000006	-0.00000638	0.21993063	-0.00009522
6508901	43369.	0.028693	-0.092769	-0.000006	-0.00000637	0.22014235	-0.00009524
6508901	43370.	0.028720	-0.092858	-0.000008	-0.00000637	0.22035422	-0.00009528
6508901	43371.	0.028747	-0.092947	-0.000009	-0.00000636	0.22056609	-0.00009531
6508901	43372.	0.028776	-0.093037	-0.000010	-0.00000637	0.22077810	-0.00009534
6508901	43373.	0.028806	-0.093126	-0.000010	-0.00000637	0.22099012	-0.00009537
6508901	43374.	0.028836	-0.093217	-0.000011	-0.00000637	0.22120228	-0.00009541
6508901	43375.	0.028865	-0.093307	-0.000011	-0.00000637	0.22141443	-0.00009544
6508901	43376.	0.028894	-0.093397	-0.000011	-0.00000638	0.22162673	-0.00009547
6508901	43377.	0.028923	-0.093486	-0.000010	-0.00000638	0.22183903	-0.00009550
6508901	43378.	0.028950	-0.093576	-0.000010	-0.00000639	0.22205148	-0.00009554
6508901	43379.	0.028977	-0.093665	-0.000009	-0.00000639	0.22226392	-0.00009557
6508901	43380.	0.029004	-0.093755	-0.000010	-0.00000639	0.22247651	-0.00009561
6508901	43381.	0.029031	-0.093844	-0.000010	-0.00000639	0.22268911	-0.00009564
6508901	43382.	0.029060	-0.093935	-0.000012	-0.00000639	0.22290186	-0.00009568
6508901	43383.	0.029090	-0.094025	-0.000013	-0.00000639	0.22311461	-0.00009571
6508901	43384.	0.029122	-0.094116	-0.000014	-0.00000639	-0.27667249	-0.00009575
6508901	43385.	0.029153	-0.094207	-0.000015	-0.00000639	-0.77645959	-0.00009578
6508901	43386.	0.029184	-0.094298	-0.000015	-0.00000640	-0.77624653	-0.00009582
6508901	43387.	0.029214	-0.094389	-0.000014	-0.00000640	-0.77603346	-0.00009586
6508901	43388.	0.029244	-0.094480	-0.000013	-0.00000641	-0.77582023	-0.00009590
6508901	43389.	0.029274	-0.094570	-0.000012	-0.00000641	-0.77560701	-0.00009593
6508901	43390.	0.029302	-0.094660	-0.000012	-0.00000642	-0.27539362	-0.00009597

EPOCH	GEOS-A		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6508901	43391.	0.029330	-0.094751	-0.000011	-0.00000642	0.22481977	-0.00009600
6508901	43392.	0.029358	-0.094841	-0.000011	-0.00000643	0.22503333	-0.00009604
6508901	43393.	0.029386	-0.094931	-0.000010	-0.00000643	0.22524689	-0.00009608
6508901	43394.	0.029415	-0.095021	-0.000011	-0.00000643	0.22546064	-0.00009612
6508901	43395.	0.029445	-0.095111	-0.000012	-0.00000643	0.22567439	-0.00009616
6508901	43396.	0.029476	-0.095203	-0.000012	-0.00000644	0.22588833	-0.00009620
6508901	43397.	0.029507	-0.095294	-0.000012	-0.00000644	0.22610227	-0.00009625
6508901	43398.	0.029538	-0.095385	-0.000011	-0.00000645	0.22631642	-0.00009631
6508901	43399.	0.029569	-0.095477	-0.000010	-0.00000646	0.22653057	-0.00009636
6508901	43400.	0.029599	-0.095567	-0.000009	-0.00000647	0.22674496	-0.00009642
6508901	43401.	0.029629	-0.095657	-0.000008	-0.00000647	0.22695936	-0.00009647
6508901	43402.	0.029657	-0.095748	-0.000007	-0.00000649	0.22717403	-0.00009653
6508901	43403.	0.029684	-0.095838	-0.000005	-0.00000650	0.22738869	-0.00009660
6508901	43404.	0.029710	-0.095928	-0.000005	-0.00000651	0.22760365	-0.00009667
6508901	43405.	0.029737	-0.096018	-0.000005	-0.00000651	0.22781861	-0.00009674
6508901	43406.	0.029765	-0.096108	-0.000006	-0.00000652	0.22803388	-0.00009681
6508901	43407.	0.029793	-0.096199	-0.000007	-0.00000653	0.22824915	-0.00009688
6508901	43408.	0.029823	-0.096291	-0.000007	-0.00000654	0.22846474	-0.00009695
6508901	43409.	0.029853	-0.096382	-0.000007	-0.00000654	0.22868032	-0.00009702
6508901	43410.	0.029884	-0.096473	-0.000006	-0.00000655	0.22889621	-0.00009709
6508901	43411.	0.029914	-0.096564	-0.000004	-0.00000656	0.22911210	-0.00009716
6508901	43412.	0.029942	-0.096654	-0.000003	-0.00000657	0.22932829	-0.00009723
6508901	43413.	0.029969	-0.096744	-0.000002	-0.00000658	0.22954448	-0.00009730
6508901	43414.	0.029994	-0.096834	-0.000002	-0.00000659	0.22976099	-0.00009737
6508901	43415.	0.030020	-0.096924	-0.000002	-0.00000660	0.22997750	-0.00009744
6508901	43416.	0.030046	-0.097015	-0.000003	-0.00000661	-0.26980567	-0.00009752
6508901	43417.	0.030071	-0.097105	-0.000003	-0.00000661	-0.76958883	-0.00009759
6508901	43418.	0.030098	-0.097196	-0.000004	-0.00000662	-0.76937167	-0.00009766
6508901	43419.	0.030125	-0.097287	-0.000004	-0.00000663	-0.76915451	-0.00009773
6508901	43420.	0.030154	-0.097378	-0.000005	-0.00000664	-0.76893702	-0.00009780
6508901	43421.	0.030182	-0.097470	-0.000005	-0.00000664	-0.76871953	-0.00009788
6508901	43422.	0.030212	-0.097562	-0.000005	-0.00000665	-0.26850171	-0.00009796
6508901	43423.	0.030241	-0.097654	-0.000005	-0.00000665	0.23171612	-0.00009804
6508901	43424.	0.030269	-0.097745	-0.000005	-0.00000667	0.23193432	-0.00009812
6508901	43425.	0.030298	-0.097836	-0.000004	-0.00000668	0.23215251	-0.00009821

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
			NODE	INCLINATION			
6508901	43426.	0.030325	-0.097927	-0.000005	-0.00000669	0.23237107	-0.00009829
6508901	43427.	0.030352	-0.098018	-0.000005	-0.00000670	0.23258964	-0.00009838
6508901	43428.	0.030378	-0.098110	-0.000006	-0.00000671	0.23280858	-0.00009846
6508901	43429.	0.030404	-0.098202	-0.000007	-0.00000671	0.23302752	-0.00009854
6508901	43430.	0.030432	-0.098294	-0.000008	-0.00000672	0.23324683	-0.00009862
6508901	43431.	0.030459	-0.098387	-0.000010	-0.00000672	0.23346614	-0.00009870
6508901	43432.	0.030489	-0.098481	-0.000011	-0.00000672	0.23368582	-0.00009879
6508901	43433.	0.030519	-0.098574	-0.000012	-0.00000672	0.23390550	-0.00009887
6508901	43434.	0.030550	-0.098667	-0.000012	-0.00000673	0.23412555	-0.00009896
6508901	43435.	0.030582	-0.098761	-0.000011	-0.00000674	0.23434559	-0.00009904
6508901	43436.	0.030613	-0.098854	-0.000011	-0.00000676	0.23456601	-0.00009913
6508901	43437.	0.030644	-0.098946	-0.000010	-0.00000677	0.23478642	-0.00009921
6508901	43438.	0.030673	-0.099039	-0.000011	-0.00000678	0.23500722	-0.00009930
6508901	43439.	0.030701	-0.099132	-0.000012	-0.00000678	0.23522801	-0.00009938
6508901	43440.	0.030729	-0.099225	-0.000014	-0.00000678	0.23544919	-0.00009946
6508901	43441.	0.030756	-0.099319	-0.000015	-0.00000678	0.23567036	-0.00009954
6508901	43442.	0.030785	-0.099414	-0.000016	-0.00000679	0.23589188	-0.00009962
6508901	43443.	0.030815	-0.099509	-0.000017	-0.00000679	0.23611339	-0.00009969
6508901	43444.	0.030846	-0.099604	-0.000017	-0.00000680	0.23633524	-0.00009977
6508901	43445.	0.030877	-0.099699	-0.000017	-0.00000680	0.23655710	-0.00009985
6508901	43446.	0.030909	-0.099793	-0.000016	-0.00000681	-0.26322070	-0.00009992
6508901	43447.	0.030942	-0.099887	-0.000015	-0.00000681	-0.76299850	-0.00010000
6508901	43448.	0.030974	-0.099982	-0.000015	-0.00000682	-0.76277597	-0.00010007
6508901	43449.	0.031007	-0.100076	-0.000014	-0.00000682	-0.76255344	-0.00010015
6508901	43450.	0.031037	-0.100169	-0.000015	-0.00000683	-0.76233055	-0.00010023
6508901	43451.	0.031068	-0.100263	-0.000015	-0.00000683	-0.76210766	-0.00010031
6508901	43452.	0.031098	-0.100358	-0.000016	-0.00000684	-0.76188444	-0.00010039
6508901	43453.	0.031127	-0.100452	-0.000016	-0.00000684	-0.76166121	-0.00010046
6508901	43454.	0.031156	-0.100547	-0.000016	-0.00000684	-0.26143765	-0.00010054
6508901	43455.	0.031184	-0.100642	-0.000017	-0.00000684	0.23878591	-0.00010061
6508901	43456.	0.031216	-0.100738	-0.000016	-0.00000684	0.23900979	-0.00010068
6508901	43457.	0.031247	-0.100834	-0.000016	-0.00000684	0.23923367	-0.00010075
6508901	43458.	0.031281	-0.100929	-0.000015	-0.00000685	0.23945786	-0.00010082
6508901	43459.	0.031315	-0.101024	-0.000013	-0.00000685	0.23968204	-0.00010090
6508901	43460.	0.031349	-0.101118	-0.000012	-0.00000686	0.23990655	-0.00010097

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43461.	0.031384	-0.101212	-0.000011	-0.00000687	0.24013106	-0.00010105
6508901	43462.	0.031415	-0.101306	-0.000012	-0.00000688	0.24035592	-0.00010112
6508901	43463.	0.031447	-0.101400	-0.000013	-0.00000688	0.24058078	-0.00010120
6508901	43464.	0.031476	-0.101495	-0.000014	-0.00000689	0.24080601	-0.00010128
6508901	43465.	0.031504	-0.101590	-0.000014	-0.00000689	0.24103123	-0.00010135
6508901	43466.	0.031533	-0.101685	-0.000014	-0.00000689	0.24125680	-0.00010143
6508901	43467.	0.031562	-0.101781	-0.000014	-0.00000689	0.24148237	-0.00010151
6508901	43468.	0.031594	-0.101877	-0.000013	-0.00000690	0.24170826	-0.00010159
6508901	43469.	0.031625	-0.101973	-0.000012	-0.00000690	0.24193416	-0.00010166
6508901	43470.	0.031659	-0.102068	-0.000011	-0.00000691	0.24216038	-0.00010174
6508901	43471.	0.031693	-0.102162	-0.000010	-0.00000691	0.24238660	-0.00010181
6508901	43472.	0.031726	-0.102257	-0.000010	-0.00000692	0.24261313	-0.00010188
6508901	43473.	0.031759	-0.102352	-0.000010	-0.00000692	0.24283965	-0.00010195
6508901	43474.	0.031790	-0.102447	-0.000011	-0.00000693	0.24306649	-0.00010202
6508901	43475.	0.031821	-0.102541	-0.000012	-0.00000694	0.24329333	-0.00010209
6508901	43476.	0.031850	-0.102637	-0.000013	-0.00000694	0.24352049	-0.00010216
6508901	43477.	0.031878	-0.102732	-0.000014	-0.00000695	0.24374764	-0.00010222
6508901	43478.	0.031905	-0.102828	-0.000015	-0.00000696	-0.25602490	-0.00010229
6508901	43479.	0.031933	-0.102925	-0.000016	-0.00000696	-0.75579745	-0.00010235
6508901	43480.	0.031962	-0.103022	-0.000016	-0.00000696	-0.75556969	-0.00010242
6508901	43481.	0.031992	-0.103118	-0.000015	-0.00000696	-0.75534192	-0.00010249
6508901	43482.	0.032024	-0.103213	-0.000014	-0.00000697	-0.75511385	-0.00010256
6508901	43483.	0.032056	-0.103309	-0.000013	-0.00000697	-0.75488577	-0.00010264
6508901	43484.	0.032090	-0.103405	-0.000014	-0.00000698	-0.75465738	-0.00010271
6508901	43485.	0.032124	-0.103501	-0.000014	-0.00000698	-0.75442899	-0.00010279
6508901	43486.	0.032155	-0.103597	-0.000015	-0.00000699	-0.25420024	-0.00010287
6508901	43487.	0.032186	-0.103693	-0.000016	-0.00000700	0.24602851	-0.00010295
6508901	43488.	0.032212	-0.103790	-0.000018	-0.00000701	0.24625763	-0.00010304
6508901	43489.	0.032238	-0.103887	-0.000019	-0.00000702	0.24648676	-0.00010312
6508901	43490.	0.032264	-0.103985	-0.000020	-0.00000702	0.24671628	-0.00010321
6508901	43491.	0.032290	-0.104083	-0.000020	-0.00000702	0.24694580	-0.00010329
6508901	43492.	0.032320	-0.104181	-0.000019	-0.00000703	0.24717566	-0.00010337
6508901	43493.	0.032349	-0.104278	-0.000018	-0.00000703	0.24740552	-0.00010344
6508901	43494.	0.032382	-0.104375	-0.000017	-0.00000704	0.24763569	-0.00010351
6508901	43495.	0.032414	-0.104472	-0.000016	-0.00000704	0.24786585	-0.00010357

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43496.	0.032447	-0.104569	-0.000016	-0.00000705	0.24809632	-0.00010364
6508901	43497.	0.032480	-0.104666	-0.000017	-0.00000705	0.24832679	-0.00010372
6508901	43498.	0.032510	-0.104764	-0.000018	-0.00000706	0.24855758	-0.00010379
6508901	43499.	0.032539	-0.104862	-0.000019	-0.00000706	0.24878837	-0.00010386
6508901	43500.	0.032566	-0.104960	-0.000020	-0.00000707	0.24901948	-0.00010393
6508901	43501.	0.032592	-0.105058	-0.000020	-0.00000707	0.24925060	-0.00010399
6508901	43502.	0.032619	-0.105157	-0.000020	-0.00000708	0.24948202	-0.00010406
6508901	43503.	0.032645	-0.105256	-0.000020	-0.00000708	0.24971345	-0.00010413
6508901	43504.	0.032675	-0.105355	-0.000018	-0.00000708	0.24994518	-0.00010421
6508901	43505.	0.032704	-0.105453	-0.000017	-0.00000708	0.25017691	-0.00010429
6508901	43506.	0.032738	-0.105551	-0.000015	-0.00000709	0.25040898	-0.00010437
6508901	43507.	0.032771	-0.105649	-0.000014	-0.00000709	0.25064105	-0.00010445
6508901	43508.	0.032806	-0.105747	-0.000014	-0.00000711	-0.24912653	-0.00010453
6508901	43509.	0.032841	-0.105845	-0.000013	-0.00000712	-0.74889411	-0.00010462
6508901	43510.	0.032874	-0.105943	-0.000014	-0.00000713	-0.74866127	-0.00010472
6508901	43511.	0.032906	-0.106041	-0.000014	-0.00000713	-0.74842842	-0.00010482
6508901	43512.	0.032935	-0.106140	-0.000015	-0.00000714	-0.74819508	-0.00010494
6508901	43513.	0.032964	-0.106239	-0.000015	-0.00000715	-0.74796175	-0.00010505
6508901	43514.	0.032991	-0.106338	-0.000014	-0.00000715	-0.74772791	-0.00010516
6508901	43515.	0.033019	-0.106437	-0.000012	-0.00000716	-0.74749407	-0.00010526
6508901	43516.	0.033051	-0.106536	-0.000011	-0.00000717	-0.24725978	-0.00010536
6508901	43517.	0.033083	-0.106635	-0.000009	-0.00000718	0.25297450	-0.00010546
6508901	43518.	0.033119	-0.106733	-0.000008	-0.00000719	0.25320919	-0.00010555
6508901	43519.	0.033155	-0.106831	-0.000006	-0.00000719	0.25344387	-0.00010564
6508901	43520.	0.033191	-0.106929	-0.000006	-0.00000720	0.25367893	-0.00010572
6508901	43521.	0.033228	-0.107027	-0.000006	-0.00000720	0.25391399	-0.00010580
6508901	43522.	0.033261	-0.107126	-0.000007	-0.00000722	0.25414941	-0.00010588
6508901	43523.	0.033293	-0.107225	-0.000008	-0.00000723	0.25438483	-0.00010595
6508901	43524.	0.033322	-0.107324	-0.000008	-0.00000724	0.25462060	-0.00010603
6508901	43525.	0.033352	-0.107424	-0.000008	-0.00000724	0.25485637	-0.00010610
6508901	43526.	0.033382	-0.107524	-0.000008	-0.00000724	0.25509246	-0.00010617
6508901	43527.	0.033412	-0.107623	-0.000007	-0.00000724	0.25532855	-0.00010624
6508901	43528.	0.033444	-0.107722	-0.000006	-0.00000725	0.25556495	-0.00010631
6508901	43529.	0.033476	-0.107821	-0.000005	-0.00000726	0.25580134	-0.00010638
6508901	43530.	0.033511	-0.107920	-0.000005	-0.00000726	0.25603802	-0.00010644

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43531.	0.033546	-0.108019	-0.000004	-0.00000726	0.25627470	-0.00010651
6508901	43532.	0.033582	-0.108118	-0.000005	-0.00000727	0.25651169	-0.00010658
6508901	43533.	0.033618	-0.108217	-0.000006	-0.00000727	0.25674868	-0.00010665
6508901	43534.	0.033651	-0.108317	-0.000007	-0.00000729	0.25698601	-0.00010673
6508901	43535.	0.033684	-0.108417	-0.000008	-0.00000730	0.25722334	-0.00010681
6508901	43536.	0.033714	-0.108517	-0.000010	-0.00000731	0.25746104	-0.00010689
6508901	43537.	0.033743	-0.108617	-0.000011	-0.00000731	0.25769873	-0.00010697
6508901	43538.	0.033770	-0.108719	-0.000011	-0.00000732	0.25793682	-0.00010707
6508901	43539.	0.033797	-0.108820	-0.000011	-0.00000733	0.25817491	-0.00010716
6508901	43540.	0.033828	-0.108920	-0.000010	-0.00000734	-0.24158659	-0.00010726
6508901	43541.	0.033859	-0.109021	-0.000009	-0.00000734	-0.74134809	-0.00010735
6508901	43542.	0.033894	-0.109121	-0.000009	-0.00000735	-0.74110921	-0.00010744
6508901	43543.	0.033929	-0.109222	-0.000008	-0.00000735	-0.74087032	-0.00010753
6508901	43544.	0.033963	-0.109322	-0.000010	-0.00000736	-0.74063099	-0.00010763
6508901	43545.	0.033998	-0.109423	-0.000011	-0.00000737	-0.74039165	-0.00010773
6508901	43546.	0.034029	-0.109525	-0.000012	-0.00000738	-0.74015186	-0.00010783
6508901	43547.	0.034060	-0.109627	-0.000014	-0.00000739	-0.73991207	-0.00010793
6508901	43548.	0.034087	-0.109730	-0.000015	-0.00000740	-0.23967183	-0.00010803
6508901	43549.	0.034113	-0.109832	-0.000015	-0.00000741	0.26056842	-0.00010813
6508901	43550.	0.034140	-0.109935	-0.000015	-0.00000742	0.26080908	-0.00010822
6508901	43551.	0.034167	-0.110037	-0.000014	-0.00000742	0.26104974	-0.00010831
6508901	43552.	0.034198	-0.110139	-0.000013	-0.00000743	0.26129078	-0.00010840
6508901	43553.	0.034228	-0.110241	-0.000012	-0.00000744	0.26153182	-0.00010849
6508901	43554.	0.034260	-0.110343	-0.000012	-0.00000745	0.26177325	-0.00010857
6508901	43555.	0.034292	-0.110444	-0.000012	-0.00000745	0.26201467	-0.00010866
6508901	43556.	0.034324	-0.110547	-0.000013	-0.00000746	0.26225648	-0.00010874
6508901	43557.	0.034357	-0.110649	-0.000013	-0.00000746	0.26249828	-0.00010882
6508901	43558.	0.034387	-0.110752	-0.000014	-0.00000747	0.26274043	-0.00010889
6508901	43559.	0.034417	-0.110854	-0.000015	-0.00000748	0.26298258	-0.00010896
6508901	43560.	0.034444	-0.110958	-0.000015	-0.00000749	0.26322506	-0.00010903
6508901	43561.	0.034471	-0.111062	-0.000015	-0.00000749	0.26346754	-0.00010910
6508901	43562.	0.034497	-0.111165	-0.000014	-0.00000750	0.26371034	-0.00010917
6508901	43563.	0.034522	-0.111268	-0.000013	-0.00000750	0.26395313	-0.00010924
6508901	43564.	0.034550	-0.111370	-0.000011	-0.00000750	0.26419623	-0.00010931
6508901	43565.	0.034578	-0.111472	-0.000009	-0.00000750	0.26443933	-0.00010939

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43566.	0.034609	-0.111574	-0.000008	-0.00000751	0.26468276	-0.00010947
6508901	43567.	0.034640	-0.111676	-0.000007	-0.00000751	0.26492619	-0.00010956
6508901	43568.	0.034673	-0.111778	-0.000008	-0.00000751	0.26516998	-0.00010964
6508901	43569.	0.034705	-0.111880	-0.000009	-0.00000751	0.26541376	-0.00010972
6508901	43570.	0.034735	-0.111983	-0.000009	-0.00000753	0.26565792	-0.00010980
6508901	43571.	0.034765	-0.112087	-0.000009	-0.00000754	0.26590207	-0.00010988
6508901	43572.	0.034791	-0.112191	-0.000009	-0.00000755	-0.23385340	-0.00010996
6508901	43573.	0.034816	-0.112294	-0.000009	-0.00000755	-0.73360887	-0.00011003
6508901	43574.	0.034842	-0.112397	-0.000008	-0.00000755	-0.73336398	-0.00011012
6508901	43575.	0.034868	-0.112500	-0.000006	-0.00000755	-0.73311908	-0.00011021
6508901	43576.	0.034897	-0.112602	-0.000005	-0.00000755	-0.73287380	-0.00011031
6508901	43577.	0.034927	-0.112704	-0.000003	-0.00000755	-0.73262852	-0.00011040
6508901	43578.	0.034959	-0.112807	-0.000004	-0.00000755	-0.73238281	-0.00011050
6508901	43579.	0.034991	-0.112909	-0.000004	-0.00000755	-0.73213709	-0.00011061
6508901	43580.	0.035024	-0.113012	-0.000005	-0.00000756	-0.23189092	-0.00011071
6508901	43581.	0.035056	-0.113114	-0.000006	-0.00000756	0.26835526	-0.00011081
6508901	43582.	0.035087	-0.113218	-0.000007	-0.00000757	0.26860190	-0.00011091
6508901	43583.	0.035118	-0.113323	-0.000007	-0.00000757	0.26884853	-0.00011101
6508901	43584.	0.035147	-0.113427	-0.000007	-0.00000758	0.26909560	-0.00011110
6508901	43585.	0.035176	-0.113531	-0.000007	-0.00000758	0.26934267	-0.00011120
6508901	43586.	0.035204	-0.113635	-0.000007	-0.00000759	0.26959015	-0.00011129
6508901	43587.	0.035233	-0.113738	-0.000006	-0.00000760	0.26983764	-0.00011138
6508901	43588.	0.035262	-0.113841	-0.000006	-0.00000760	0.27008549	-0.00011146
6508901	43589.	0.035292	-0.113944	-0.000006	-0.00000760	0.27033334	-0.00011154
6508901	43590.	0.035324	-0.114048	-0.000007	-0.00000760	0.27058156	-0.00011162
6508901	43591.	0.035356	-0.114151	-0.000007	-0.00000760	0.27082977	-0.00011170
6508901	43592.	0.035391	-0.114256	-0.000008	-0.00000760	0.27107834	-0.00011178
6508901	43593.	0.035425	-0.114360	-0.000010	-0.00000760	0.27132690	-0.00011187
6508901	43594.	0.035458	-0.114465	-0.000012	-0.00000761	0.27157585	-0.00011195
6508901	43595.	0.035491	-0.114571	-0.000013	-0.00000762	0.27182479	-0.00011204
6508901	43596.	0.035522	-0.114677	-0.000014	-0.00000763	0.27207411	-0.00011212
6508901	43597.	0.035553	-0.114783	-0.000014	-0.00000764	0.27232344	-0.00011221
6508901	43598.	0.035583	-0.114889	-0.000014	-0.00000765	0.27257314	-0.00011228
6508901	43599.	0.035612	-0.114994	-0.000013	-0.00000766	0.27282283	-0.00011236
6508901	43600.	0.035642	-0.115099	-0.000014	-0.00000766	0.27307290	-0.00011245

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43601.	0.035673	-0.115204	-0.000014	-0.00000766	0.27332296	-0.00011255
6508901	43602.	0.035707	-0.115310	-0.000015	-0.00000767	-0.22642655	-0.00011265
6508901	43603.	0.035741	-0.115415	-0.000016	-0.00000767	-0.72617607	-0.00011275
6508901	43604.	0.035776	-0.115522	-0.000018	-0.00000768	-0.72592513	-0.00011285
6508901	43605.	0.035811	-0.115628	-0.000020	-0.00000769	-0.72567419	-0.00011296
6508901	43606.	0.035845	-0.115735	-0.000021	-0.00000771	-0.72542276	-0.00011307
6508901	43607.	0.035880	-0.115843	-0.000021	-0.00000772	-0.72517134	-0.00011318
6508901	43608.	0.035912	-0.115950	-0.000021	-0.00000773	-0.72491940	-0.00011330
6508901	43609.	0.035944	-0.116058	-0.000020	-0.00000774	-0.72466746	-0.00011341
6508901	43610.	0.035976	-0.116165	-0.000020	-0.00000776	-0.22441501	-0.00011353
6508901	43611.	0.036007	-0.116273	-0.000019	-0.00000777	0.27583745	-0.00011365
6508901	43612.	0.036039	-0.116380	-0.000019	-0.00000778	0.27609044	-0.00011377
6508901	43613.	0.036070	-0.116487	-0.000019	-0.00000778	0.27634343	-0.00011389
6508901	43614.	0.036103	-0.116594	-0.000020	-0.00000779	0.27659694	-0.00011400
6508901	43615.	0.036136	-0.116701	-0.000020	-0.00000780	0.27685044	-0.00011411
6508901	43616.	0.036171	-0.116809	-0.000021	-0.00000781	0.27710445	-0.00011422
6508901	43617.	0.036206	-0.116917	-0.000021	-0.00000782	0.27735845	-0.00011434
6508901	43618.	0.036242	-0.117025	-0.000021	-0.00000784	0.27761296	-0.00011445
6508901	43619.	0.036277	-0.117133	-0.000021	-0.00000785	0.27786746	-0.00011457
6508901	43620.	0.036310	-0.117242	-0.000021	-0.00000787	0.27812249	-0.00011469
6508901	43621.	0.036343	-0.117352	-0.000020	-0.00000788	0.27837752	-0.00011481
6508901	43622.	0.036374	-0.117460	-0.000018	-0.00000789	0.27863310	-0.00011493
6508901	43623.	0.036404	-0.117568	-0.000016	-0.00000790	0.27888867	-0.00011506
6508901	43624.	0.036434	-0.117675	-0.000016	-0.00000791	0.27914484	-0.00011520
6508901	43625.	0.036464	-0.117782	-0.000015	-0.00000792	0.27940101	-0.00011534
6508901	43626.	0.036497	-0.117890	-0.000016	-0.00000793	0.27965782	-0.00011549
6508901	43627.	0.036529	-0.117998	-0.000016	-0.00000794	0.27991464	-0.00011564
6508901	43628.	0.036564	-0.118107	-0.000017	-0.00000796	0.28017217	-0.00011581
6508901	43629.	0.036598	-0.118216	-0.000018	-0.00000797	0.28042969	-0.00011598
6508901	43630.	0.036633	-0.118326	-0.000018	-0.00000799	0.28068799	-0.00011616
6508901	43631.	0.036668	-0.118435	-0.000017	-0.00000801	0.28094628	-0.00011633
6508901	43632.	0.036701	-0.118545	-0.000016	-0.00000803	0.28120537	-0.00011651
6508901	43633.	0.036733	-0.118654	-0.000015	-0.00000804	0.28146446	-0.00011669
6508901	43634.	0.036764	-0.118763	-0.000014	-0.00000806	-0.21827565	-0.00011687
6508901	43635.	0.036794	-0.118872	-0.000012	-0.00000808	-0.71801577	-0.00011705

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43636.	0.036825	-0.118981	-0.000013	-0.00000809	-0.71775509	-0.00011722
6508901	43637.	0.036855	-0.119090	-0.000013	-0.00000810	-0.71749441	-0.00011740
6508901	43638.	0.036888	-0.119199	-0.000014	-0.00000811	-0.71723301	-0.00011755
6508901	43639.	0.036920	-0.119308	-0.000014	-0.00000812	-0.71697161	-0.00011770
6508901	43640.	0.036955	-0.119419	-0.000015	-0.00000814	-0.71670958	-0.00011784
6508901	43641.	0.036989	-0.119529	-0.000016	-0.00000815	-0.71644755	-0.00011798
6508901	43642.	0.037025	-0.119640	-0.000016	-0.00000816	-0.21618487	-0.00011813
6508901	43643.	0.037061	-0.119750	-0.000016	-0.00000818	0.28407782	-0.00011828
6508901	43644.	0.037095	-0.119862	-0.000015	-0.00000819	0.28434120	-0.00011844
6508901	43645.	0.037129	-0.119973	-0.000014	-0.00000820	0.28460457	-0.00011860
6508901	43646.	0.037162	-0.120084	-0.000014	-0.00000822	0.28486866	-0.00011876
6508901	43647.	0.037195	-0.120194	-0.000013	-0.00000824	0.28513275	-0.00011892
6508901	43648.	0.037227	-0.120304	-0.000014	-0.00000825	0.28539756	-0.00011908
6508901	43649.	0.037258	-0.120415	-0.000015	-0.00000826	0.28566238	-0.00011924
6508901	43650.	0.037291	-0.120526	-0.000016	-0.00000827	0.28592786	-0.00011939
6508901	43651.	0.037325	-0.120638	-0.000018	-0.00000828	0.28619333	-0.00011953
6508901	43652.	0.037362	-0.120751	-0.000019	-0.00000829	0.28645946	-0.00011968
6508901	43653.	0.037399	-0.120863	-0.000020	-0.00000830	0.28672558	-0.00011982
6508901	43654.	0.037438	-0.120977	-0.000020	-0.00000832	0.28699240	-0.00011999
6508901	43655.	0.037476	-0.121090	-0.000020	-0.00000833	0.28725921	-0.00012015
6508901	43656.	0.037512	-0.121204	-0.000020	-0.00000835	0.28752678	-0.00012032
6508901	43657.	0.037548	-0.121317	-0.000019	-0.00000837	0.28779434	-0.00012049
6508901	43658.	0.037582	-0.121430	-0.000018	-0.00000838	0.28806265	-0.00012066
6508901	43659.	0.037616	-0.121542	-0.000017	-0.00000840	0.28833095	-0.00012082
6508901	43660.	0.037650	-0.121655	-0.000018	-0.00000842	0.28859998	-0.00012099
6508901	43661.	0.037685	-0.121768	-0.000020	-0.00000843	0.28886901	-0.00012115
6508901	43662.	0.037721	-0.121882	-0.000021	-0.00000844	0.28913876	-0.00012130
6508901	43663.	0.037758	-0.121996	-0.000022	-0.00000845	0.28940851	-0.00012145
6508901	43664.	0.037797	-0.122112	-0.000023	-0.00000846	-0.21032109	-0.00012159
6508901	43665.	0.037835	-0.122227	-0.000023	-0.00000847	-0.71005068	-0.00012173
6508901	43666.	0.037874	-0.122342	-0.000023	-0.00000848	-0.70977971	-0.00012185
6508901	43667.	0.037913	-0.122457	-0.000022	-0.00000849	-0.70950874	-0.00012198
6508901	43668.	0.037951	-0.122573	-0.000021	-0.00000850	-0.70923722	-0.00012211
6508901	43669.	0.037989	-0.122688	-0.000019	-0.00000851	-0.70896570	-0.00012223
6508901	43670.	0.038025	-0.122803	-0.000018	-0.00000852	-0.70869365	-0.00012235

	EPOCH	GEOS-A PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6508901	43671.	0.038061	-0.122917	-0.000017	-0.00000853	-0.70842160	-0.00012246
6508901	43672.	0.038096	-0.123032	-0.000017	-0.00000855	-0.70814902	-0.00012258
6508901	43673.	0.038131	-0.123146	-0.000017	-0.00000856	-0.70787643	-0.00012271
6508901	43674.	0.038168	-0.123262	-0.000018	-0.00000858	-0.20760326	-0.00012285
6508901	43675.	0.038204	-0.123377	-0.000019	-0.00000859	0.29266991	-0.00012299
6508901	43676.	0.038242	-0.123494	-0.000019	-0.00000860	0.29294371	-0.00012313
6508901	43677.	0.038279	-0.123610	-0.000019	-0.00000861	0.29321751	-0.00012327
6508901	43678.	0.038317	-0.123726	-0.000018	-0.00000863	0.29349198	-0.00012343
6508901	43679.	0.038356	-0.123843	-0.000016	-0.00000864	0.29376645	-0.00012359
6508901	43680.	0.038393	-0.123959	-0.000014	-0.00000866	0.29404163	-0.00012376
6508901	43681.	0.038430	-0.124075	-0.000012	-0.00000867	0.29431680	-0.00012392
6508901	43682.	0.038465	-0.124191	-0.000011	-0.00000869	0.29459276	-0.00012411
6508901	43683.	0.038499	-0.124306	-0.000009	-0.00000872	0.29486872	-0.00012429
6508901	43684.	0.038534	-0.124422	-0.000010	-0.00000874	0.29514553	-0.00012449
6508901	43685.	0.038568	-0.124538	-0.000010	-0.00000875	0.29542234	-0.00012468
6508901	43686.	0.038603	-0.124654	-0.000011	-0.00000877	0.29569997	-0.00012485
6508901	43687.	0.038638	-0.124771	-0.000012	-0.00000879	0.29597760	-0.00012503
6508901	43688.	0.038675	-0.124888	-0.000012	-0.00000880	0.29625602	-0.00012521
6508901	43689.	0.038712	-0.125006	-0.000011	-0.00000882	0.29653445	-0.00012538
6508901	43690.	0.038749	-0.125124	-0.000010	-0.00000884	0.29681359	-0.00012554
6508901	43691.	0.038786	-0.125241	-0.000008	-0.00000885	0.29709274	-0.00012569
6508901	43692.	0.038822	-0.125358	-0.000007	-0.00000887	0.29737253	-0.00012582
6508901	43693.	0.038857	-0.125475	-0.000006	-0.00000888	0.29765232	-0.00012595
6508901	43694.	0.038890	-0.125592	-0.000006	-0.00000889	0.29793264	-0.00012605
6508901	43695.	0.038923	-0.125709	-0.000005	-0.00000891	0.29821295	-0.00012616
6508901	43696.	0.038957	-0.125826	-0.000006	-0.00000892	-0.20150627	-0.00012627
6508901	43697.	0.038990	-0.125943	-0.000007	-0.00000893	-0.70122549	-0.00012637

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	41501.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
6800201	41502.	0.000000	0.000000	0.000000	0.00000000	0.00000009	-0.00000007
6800201	41503.	0.000000	0.000000	0.000000	0.00000000	0.00000035	-0.00000014
6800201	41504.	0.000000	0.000000	0.000000	-0.00000001	0.00000081	-0.00000022
6800201	41505.	-0.000001	0.000001	0.000000	-0.00000001	0.00000145	-0.00000029
6800201	41506.	-0.000001	0.000001	0.000000	-0.00000002	0.00000229	-0.00000038
6800201	41507.	-0.000002	0.000001	0.000000	-0.00000002	0.00000333	-0.00000045
6800201	41508.	-0.000002	0.000001	0.000000	-0.00000002	0.00000455	-0.00000052
6800201	41509.	-0.000003	0.000001	0.000000	-0.00000002	0.00000595	-0.00000060
6800201	41510.	-0.000004	0.000002	0.000000	-0.00000003	0.00000750	-0.00000066
6800201	41511.	-0.000004	0.000002	0.000000	-0.00000003	0.00000923	-0.00000072
6800201	41512.	-0.000004	0.000003	0.000000	-0.00000004	0.00001112	-0.00000079
6800201	41513.	-0.000005	0.000004	0.000000	-0.00000004	0.00001316	-0.00000085
6800201	41514.	-0.000006	0.000004	0.000000	-0.00000004	0.00001536	-0.00000091
6800201	41515.	-0.000007	0.000005	0.000000	-0.00000004	0.00001772	-0.00000098
6800201	41516.	-0.000008	0.000005	0.000000	-0.00000005	0.00002023	-0.00000104
6800201	41517.	-0.000009	0.000006	0.000000	-0.00000005	0.00002290	-0.00000110
6800201	41518.	-0.000010	0.000007	0.000000	-0.00000006	0.00002570	-0.00000115
6800201	41519.	-0.000011	0.000007	0.000000	-0.00000005	0.00002867	-0.00000122
6800201	41520.	-0.000012	0.000008	-0.000001	-0.00000006	0.00003177	-0.00000127
6800201	41521.	-0.000013	0.000008	0.000000	-0.00000006	0.00003503	-0.00000133
6800201	41522.	-0.000015	0.000010	0.000000	-0.00000007	0.00003844	-0.00000139
6800201	41523.	-0.000016	0.000011	0.000000	-0.00000007	0.00004198	-0.00000145
6800201	41524.	-0.000017	0.000012	0.000000	-0.00000007	0.00004569	-0.00000151
6800201	41525.	-0.000018	0.000012	0.000000	-0.00000007	0.00004954	-0.00000157
6800201	41526.	-0.000020	0.000013	0.000000	-0.00000008	0.00005355	-0.00000163
6800201	41527.	-0.000021	0.000015	0.000000	-0.00000009	0.00005771	-0.00000171
6800201	41528.	-0.000023	0.000016	0.000000	-0.00000009	0.00006206	-0.00000178
6800201	41529.	-0.000025	0.000017	0.000000	-0.00000010	0.00006658	-0.00000185
6800201	41530.	-0.000025	0.000018	0.000000	-0.00000010	0.00007130	-0.00000193
6800201	41531.	-0.000027	0.000019	0.000000	-0.00000011	0.00007621	-0.00000200
6800201	41532.	-0.000029	0.000020	0.000000	-0.00000011	0.00008132	-0.00000209
6800201	41533.	-0.000031	0.000022	0.000000	-0.00000012	0.00008663	-0.00000217
6800201	41534.	-0.000033	0.000023	0.000000	-0.00000012	0.00009216	-0.00000226
6800201	41535.	-0.000035	0.000024	-0.000001	-0.00000013	0.00009790	-0.00000234

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41536.	-0.000038	0.000025	-0.000001	-0.00000013	0.00010387	-0.00000243
6800201	41537.	-0.000039	0.000027	0.000000	-0.00000014	0.00011005	-0.00000251
6800201	41538.	-0.000041	0.000029	0.000000	-0.00000014	0.00011643	-0.00000259
6800201	41539.	-0.000044	0.000030	0.000000	-0.00000015	0.00012298	-0.00000266
6800201	41540.	-0.000046	0.000032	0.000000	-0.00000015	0.00012971	-0.00000273
6800201	41541.	-0.000048	0.000034	0.000000	-0.00000015	0.00013660	-0.00000279
6800201	41542.	-0.000050	0.000035	0.000000	-0.00000016	0.00014364	-0.00000285
6800201	41543.	-0.000052	0.000037	0.000000	-0.00000016	0.00015085	-0.00000291
6800201	41544.	-0.000055	0.000039	0.000000	-0.00000017	0.00015820	-0.00000297
6800201	41545.	-0.000058	0.000041	-0.000001	-0.00000018	0.00016569	-0.00000302
6800201	41546.	-0.000060	0.000043	0.000000	-0.00000018	0.00017332	-0.00000309
6800201	41547.	-0.000062	0.000044	-0.000001	-0.00000019	0.00018109	-0.00000314
6800201	41548.	-0.000065	0.000047	-0.000001	-0.00000019	0.00018899	-0.00000319
6800201	41549.	-0.000068	0.000049	0.000000	-0.00000019	0.00019705	-0.00000326
6800201	41550.	-0.000070	0.000050	-0.000001	-0.00000019	0.00020526	-0.00000332
6800201	41551.	-0.000072	0.000052	0.000000	-0.00000019	0.00021362	-0.00000338
6800201	41552.	-0.000075	0.000054	-0.000001	-0.00000020	0.00022215	-0.00000345
6800201	41553.	-0.000078	0.000057	-0.000001	-0.00000021	0.00023085	-0.00000352
6800201	41554.	-0.000081	0.000059	-0.000001	-0.00000021	0.00023971	-0.00000359
6800201	41555.	-0.000083	0.000061	0.000000	-0.00000021	0.00024876	-0.00000366
6800201	41556.	-0.000087	0.000063	-0.000001	-0.00000022	0.00025797	-0.00000373
6800201	41557.	-0.000090	0.000066	-0.000001	-0.00000022	0.00026736	-0.00000379
6800201	41558.	-0.000092	0.000068	0.000000	-0.00000023	0.00027693	-0.00000387
6800201	41559.	-0.000096	0.000071	-0.000001	-0.00000023	0.00028671	-0.00000396
6800201	41560.	-0.000098	0.000073	0.000000	-0.00000024	0.00029669	-0.00000404
6800201	41561.	-0.000102	0.000075	-0.000001	-0.00000024	0.00030688	-0.00000413
6800201	41562.	-0.000104	0.000078	0.000000	-0.00000024	0.00031730	-0.00000422
6800201	41563.	-0.000108	0.000081	-0.000001	-0.00000026	0.00032792	-0.00000429
6800201	41564.	-0.000112	0.000084	0.000000	-0.00000026	0.00033875	-0.00000437
6800201	41565.	-0.000115	0.000086	0.000000	-0.00000026	0.00034977	-0.00000445
6800201	41566.	-0.000119	0.000089	0.000000	-0.00000027	0.00036097	-0.00000451
6800201	41567.	-0.000122	0.000092	-0.000001	-0.00000027	0.00037234	-0.00000458
6800201	41568.	-0.000126	0.000094	0.000000	-0.00000027	0.00038387	-0.00000465
6800201	41569.	-0.000129	0.000097	-0.000001	-0.00000028	0.00039557	-0.00000472
6800201	41570.	-0.000132	0.000101	-0.000001	-0.00000028	0.00040743	-0.00000478

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41571.	-0.000136	0.000104	-0.000001	-0.00000028	0.00041946	-0.00000484
6800201	41572.	-0.000139	0.000107	-0.000001	-0.00000029	0.00043164	-0.00000490
6800201	41573.	-0.000143	0.000109	-0.000001	-0.00000029	0.00044397	-0.00000497
6800201	41574.	-0.000147	0.000113	-0.000001	-0.00000029	0.00045645	-0.00000502
6800201	41575.	-0.000151	0.000115	-0.000001	-0.00000030	0.00046908	-0.00000509
6800201	41576.	-0.000154	0.000119	-0.000001	-0.00000029	0.00048186	-0.00000515
6800201	41577.	-0.000159	0.000122	-0.000001	-0.00000030	0.00049479	-0.00000520
6800201	41578.	-0.000162	0.000125	-0.000001	-0.00000030	0.00050786	-0.00000527
6800201	41579.	-0.000167	0.000128	-0.000001	-0.00000031	0.00052108	-0.00000533
6800201	41580.	-0.000171	0.000132	-0.000001	-0.00000031	0.00053446	-0.00000539
6800201	41581.	-0.000175	0.000135	-0.000001	-0.00000031	0.00054799	-0.00000545
6800201	41582.	-0.000179	0.000138	0.000000	-0.00000031	0.00056169	-0.00000552
6800201	41583.	-0.000183	0.000142	-0.000001	-0.00000032	0.00057556	-0.00000558
6800201	41584.	-0.000187	0.000145	-0.000001	-0.00000032	0.00058959	-0.00000566
6800201	41585.	-0.000191	0.000149	0.000000	-0.00000032	0.00060381	-0.00000572
6800201	41586.	-0.000195	0.000153	-0.000001	-0.00000032	0.00061821	-0.00000580
6800201	41587.	-0.000200	0.000156	0.000000	-0.00000032	0.00063278	-0.00000587
6800201	41588.	-0.000205	0.000160	-0.000001	-0.00000032	0.00064756	-0.00000595
6800201	41589.	-0.000208	0.000163	-0.000001	-0.00000033	0.00066250	-0.00000602
6800201	41590.	-0.000213	0.000167	-0.000001	-0.00000033	0.00067763	-0.00000610
6800201	41591.	-0.000217	0.000170	-0.000001	-0.00000033	0.00069294	-0.00000617
6800201	41592.	-0.000222	0.000174	-0.000001	-0.00000033	0.00070842	-0.00000624
6800201	41593.	-0.000227	0.000179	-0.000001	-0.00000033	0.00072408	-0.00000631
6800201	41594.	-0.000232	0.000183	0.000000	-0.00000034	0.00073993	-0.00000638
6800201	41595.	-0.000237	0.000186	-0.000001	-0.00000034	0.00075594	-0.00000645
6800201	41596.	-0.000241	0.000190	-0.000001	-0.00000034	0.00077213	-0.00000652
6800201	41597.	-0.000245	0.000195	-0.000001	-0.00000035	0.00078848	-0.00000658
6800201	41598.	-0.000251	0.000198	-0.000001	-0.00000035	0.00080500	-0.00000664
6800201	41599.	-0.000255	0.000202	-0.000001	-0.00000035	0.00082168	-0.00000671
6800201	41600.	-0.000261	0.000206	-0.000001	-0.00000035	0.00083852	-0.00000678
6800201	41601.	-0.000266	0.000211	-0.000001	-0.00000035	0.00085552	-0.00000685
6800201	41602.	-0.000270	0.000215	-0.000001	-0.00000035	0.00087269	-0.00000690
6800201	41603.	-0.000276	0.000219	-0.000001	-0.00000035	0.00089002	-0.00000697
6800201	41604.	-0.000281	0.000224	-0.000001	-0.00000036	0.00090751	-0.00000704
6800201	41605.	-0.000286	0.000228	-0.000001	-0.00000036	0.00092517	-0.00000710

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41606.	-0.000291	0.000232	-0.000001	-0.00000036	0.00094299	-0.00000717
6800201	41607.	-0.000297	0.000237	-0.000001	-0.00000036	0.00096100	-0.00000724
6800201	41608.	-0.000302	0.000241	-0.000001	-0.00000037	0.00097916	-0.00000732
6800201	41609.	-0.000307	0.000246	-0.000001	-0.00000037	0.00099753	-0.00000739
6800201	41610.	-0.000313	0.000250	-0.000001	-0.00000037	0.00101608	-0.00000747
6800201	41611.	-0.000318	0.000256	-0.000001	-0.00000037	0.00103484	-0.00000755
6800201	41612.	-0.000323	0.000260	-0.000001	-0.00000037	0.00105380	-0.00000763
6800201	41613.	-0.000329	0.000264	-0.000001	-0.00000038	0.00107298	-0.00000772
6800201	41614.	-0.000334	0.000270	-0.000001	-0.00000038	0.00109240	-0.00000782
6800201	41615.	-0.000340	0.000274	-0.000001	-0.00000039	0.00111207	-0.00000793
6800201	41616.	-0.000345	0.000279	-0.000001	-0.00000039	0.00113201	-0.00000804
6800201	41617.	-0.000352	0.000284	-0.000001	-0.00000039	0.00115224	-0.00000816
6800201	41618.	-0.000357	0.000289	-0.000001	-0.00000039	0.00117277	-0.00000828
6800201	41619.	-0.000364	0.000294	-0.000001	-0.00000040	0.00119362	-0.00000841
6800201	41620.	-0.000369	0.000300	-0.000001	-0.00000040	0.00121476	-0.00000853
6800201	41621.	-0.000375	0.000304	-0.000001	-0.00000040	0.00123621	-0.00000864
6800201	41622.	-0.000382	0.000311	-0.000001	-0.00000042	0.00125794	-0.00000875
6800201	41623.	-0.000388	0.000316	-0.000002	-0.00000042	0.00127995	-0.00000887
6800201	41624.	-0.000395	0.000321	-0.000001	-0.00000042	0.00130223	-0.00000897
6800201	41625.	-0.000400	0.000327	-0.000001	-0.00000043	0.00132477	-0.00000908
6800201	41626.	-0.000408	0.000332	-0.000001	-0.00000043	0.00134756	-0.00000917
6800201	41627.	-0.000414	0.000338	-0.000001	-0.00000043	0.00137057	-0.00000925
6800201	41628.	-0.000420	0.000344	-0.000002	-0.00000043	0.00139380	-0.00000934
6800201	41629.	-0.000427	0.000349	-0.000001	-0.00000044	0.00141723	-0.00000942
6800201	41630.	-0.000435	0.000355	-0.000001	-0.00000044	0.00144086	-0.00000950
6800201	41631.	-0.000441	0.000361	-0.000001	-0.00000044	0.00146468	-0.00000957
6800201	41632.	-0.000448	0.000367	-0.000001	-0.00000046	0.00148867	-0.00000964
6800201	41633.	-0.000455	0.000373	-0.000002	-0.00000046	0.00151285	-0.00000972
6800201	41634.	-0.000462	0.000379	-0.000002	-0.00000046	0.00153722	-0.00000980
6800201	41635.	-0.000469	0.000385	-0.000001	-0.00000047	0.00156178	-0.00000987
6800201	41636.	-0.000476	0.000391	-0.000002	-0.00000046	0.00158655	-0.00000996
6800201	41637.	-0.000483	0.000397	-0.000001	-0.00000047	0.00161150	-0.00001003
6800201	41638.	-0.000490	0.000404	-0.000002	-0.00000047	0.00163665	-0.00001012
6800201	41639.	-0.000497	0.000410	-0.000002	-0.00000048	0.00166200	-0.00001020
6800201	41640.	-0.000505	0.000416	-0.000002	-0.00000048	0.00168756	-0.00001027

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41641.	-0.000512	0.000422	-0.000002	-0.00000049	0.00171333	-0.00001036
6800201	41642.	-0.000520	0.000429	-0.000002	-0.00000050	0.00173932	-0.00001045
6800201	41643.	-0.000527	0.000435	-0.000002	-0.00000050	0.00176555	-0.00001055
6800201	41644.	-0.000535	0.000442	-0.000001	-0.00000051	0.00179202	-0.00001065
6800201	41645.	-0.000543	0.000448	-0.000001	-0.00000051	0.00181874	-0.00001075
6800201	41646.	-0.000550	0.000455	-0.000002	-0.00000052	0.00184572	-0.00001086
6800201	41647.	-0.000558	0.000462	-0.000001	-0.00000052	0.00187297	-0.00001096
6800201	41648.	-0.000566	0.000469	-0.000001	-0.00000053	0.00190049	-0.00001107
6800201	41649.	-0.000574	0.000475	-0.000001	-0.00000054	0.00192827	-0.00001117
6800201	41650.	-0.000582	0.000483	-0.000002	-0.00000055	0.00195630	-0.00001128
6800201	41651.	-0.000590	0.000490	-0.000001	-0.00000055	0.00198457	-0.00001137
6800201	41652.	-0.000598	0.000497	-0.000001	-0.00000055	0.00201307	-0.00001146
6800201	41653.	-0.000606	0.000504	-0.000001	-0.00000056	0.00204181	-0.00001155
6800201	41654.	-0.000615	0.000511	-0.000002	-0.00000057	0.00207077	-0.00001165
6800201	41655.	-0.000623	0.000518	-0.000001	-0.00000058	0.00209995	-0.00001173
6800201	41656.	-0.000632	0.000525	-0.000002	-0.00000059	0.00212936	-0.00001181
6800201	41657.	-0.000641	0.000533	-0.000002	-0.00000059	0.00215897	-0.00001190
6800201	41658.	-0.000649	0.000540	-0.000002	-0.00000059	0.00218878	-0.00001198
6800201	41659.	-0.000658	0.000548	-0.000002	-0.00000060	0.00221880	-0.00001206
6800201	41660.	-0.000666	0.000555	-0.000002	-0.00000061	0.00224902	-0.00001214
6800201	41661.	-0.000675	0.000562	-0.000002	-0.00000062	0.00227945	-0.00001223
6800201	41662.	-0.000684	0.000570	-0.000002	-0.00000062	0.00231012	-0.00001232
6800201	41663.	-0.000693	0.000578	-0.000002	-0.00000063	0.00234102	-0.00001243
6800201	41664.	-0.000702	0.000585	-0.000002	-0.00000064	0.00237217	-0.00001253
6800201	41665.	-0.000712	0.000593	-0.000002	-0.00000064	0.00240357	-0.00001262
6800201	41666.	-0.000721	0.000601	-0.000002	-0.00000065	0.00243524	-0.00001273
6800201	41667.	-0.000730	0.000609	-0.000002	-0.00000066	0.00246717	-0.00001284
6800201	41668.	-0.000739	0.000617	-0.000001	-0.00000067	0.00249936	-0.00001295
6800201	41669.	-0.000749	0.000625	-0.000002	-0.00000067	0.00253182	-0.00001305
6800201	41670.	-0.000758	0.000632	-0.000001	-0.00000068	0.00256456	-0.00001316
6800201	41671.	-0.000768	0.000641	-0.000002	-0.00000070	0.00259756	-0.00001327
6800201	41672.	-0.000778	0.000649	-0.000001	-0.00000070	0.00263083	-0.00001338
6800201	41673.	-0.000787	0.000657	-0.000002	-0.00000071	0.00266438	-0.00001349
6800201	41674.	-0.000798	0.000666	-0.000002	-0.00000072	0.00269820	-0.00001359
6800201	41675.	-0.000807	0.000674	-0.000002	-0.00000073	0.00273229	-0.00001369

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41676.	-0.000818	0.000683	-0.000002	-0.00000074	0.00276663	-0.00001380
6800201	41677.	-0.000828	0.000691	-0.000002	-0.00000075	0.00280121	-0.00001390
6800201	41678.	-0.000838	0.000700	-0.000002	-0.00000076	0.00283604	-0.00001400
6800201	41679.	-0.000848	0.000708	-0.000002	-0.00000077	0.00287111	-0.00001410
6800201	41680.	-0.000859	0.000717	-0.000002	-0.00000078	0.00290642	-0.00001418
6800201	41681.	-0.000869	0.000726	-0.000002	-0.00000078	0.00294196	-0.00001427
6800201	41682.	-0.000879	0.000734	-0.000002	-0.00000079	0.00297770	-0.00001435
6800201	41683.	-0.000891	0.000744	-0.000002	-0.00000079	0.00301365	-0.00001443
6800201	41684.	-0.000901	0.000752	-0.000002	-0.00000080	0.00304982	-0.00001453
6800201	41685.	-0.000912	0.000762	-0.000002	-0.00000080	0.00308620	-0.00001461
6800201	41686.	-0.000923	0.000771	-0.000002	-0.00000081	0.00312281	-0.00001470
6800201	41687.	-0.000933	0.000779	-0.000002	-0.00000082	0.00315964	-0.00001479
6800201	41688.	-0.000945	0.000788	-0.000002	-0.00000083	0.00319671	-0.00001488
6800201	41689.	-0.000956	0.000798	-0.000002	-0.00000084	0.00323401	-0.00001499
6800201	41690.	-0.000967	0.000807	-0.000002	-0.00000085	0.00327155	-0.00001508
6800201	41691.	-0.000978	0.000816	-0.000002	-0.00000086	0.00330933	-0.00001518
6800201	41692.	-0.000990	0.000826	-0.000002	-0.00000086	0.00334734	-0.00001526
6800201	41693.	-0.001001	0.000835	-0.000002	-0.00000087	0.00338557	-0.00001535
6800201	41694.	-0.001012	0.000844	-0.000002	-0.00000088	0.00342402	-0.00001544
6800201	41695.	-0.001024	0.000854	-0.000002	-0.00000088	0.00346268	-0.00001552
6800201	41696.	-0.001036	0.000864	-0.000002	-0.00000089	0.00350155	-0.00001560
6800201	41697.	-0.001047	0.000874	-0.000002	-0.00000089	0.00354063	-0.00001569
6800201	41698.	-0.001059	0.000883	-0.000002	-0.00000090	0.00357992	-0.00001577
6800201	41699.	-0.001070	0.000893	-0.000002	-0.00000091	0.00361940	-0.00001584
6800201	41700.	-0.001082	0.000903	-0.000002	-0.00000091	0.00365908	-0.00001593
6800201	41701.	-0.001095	0.000912	-0.000002	-0.00000092	0.00369895	-0.00001601
6800201	41702.	-0.001106	0.000922	-0.000002	-0.00000092	0.00373901	-0.00001608
6800201	41703.	-0.001118	0.000932	-0.000002	-0.00000093	0.00377925	-0.00001615
6800201	41704.	-0.001130	0.000942	-0.000002	-0.00000093	0.00381968	-0.00001623
6800201	41705.	-0.001142	0.000952	-0.000002	-0.00000094	0.00386030	-0.00001630
6800201	41706.	-0.001155	0.000962	-0.000002	-0.00000095	0.00390111	-0.00001638
6800201	41707.	-0.001167	0.000973	-0.000002	-0.00000095	0.00394209	-0.00001644
6800201	41708.	-0.001180	0.000983	-0.000002	-0.00000095	0.00398327	-0.00001652
6800201	41709.	-0.001192	0.000993	-0.000002	-0.00000096	0.00402462	-0.00001660
6800201	41710.	-0.001204	0.001003	-0.000002	-0.00000096	0.00406614	-0.00001666

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41711.	-0.001217	0.001013	-0.000002	-0.00000097	0.00410784	-0.00001673
6800201	41712.	-0.001229	0.001024	-0.000003	-0.00000098	0.00414971	-0.00001680
6800201	41713.	-0.001242	0.001034	-0.000003	-0.00000098	0.00419174	-0.00001687
6800201	41714.	-0.001254	0.001044	-0.000002	-0.00000098	0.00423395	-0.00001693
6800201	41715.	-0.001267	0.001055	-0.000002	-0.00000099	0.00427630	-0.00001699
6800201	41716.	-0.001280	0.001065	-0.000003	-0.00000099	0.00431881	-0.00001705
6800201	41717.	-0.001292	0.001075	-0.000002	-0.00000099	0.00436147	-0.00001711
6800201	41718.	-0.001305	0.001087	-0.000002	-0.00000100	0.00440429	-0.00001718
6800201	41719.	-0.001317	0.001096	-0.000002	-0.00000100	0.00444727	-0.00001724
6800201	41720.	-0.001330	0.001107	-0.000002	-0.00000100	0.00449040	-0.00001730
6800201	41721.	-0.001343	0.001118	-0.000002	-0.00000101	0.00453370	-0.00001737
6800201	41722.	-0.001356	0.001129	-0.000002	-0.00000102	0.00457716	-0.00001743
6800201	41723.	-0.001369	0.001139	-0.000002	-0.00000102	0.00462078	-0.00001749
6800201	41724.	-0.001382	0.001151	-0.000003	-0.00000102	0.00466456	-0.00001756
6800201	41725.	-0.001396	0.001161	-0.000002	-0.00000102	0.00470849	-0.00001763
6800201	41726.	-0.001409	0.001172	-0.000002	-0.00000102	0.00475260	-0.00001769
6800201	41727.	-0.001421	0.001183	-0.000003	-0.00000103	0.00479687	-0.00001776
6800201	41728.	-0.001435	0.001194	-0.000003	-0.00000104	0.00484130	-0.00001783
6800201	41729.	-0.001448	0.001205	-0.000002	-0.00000104	0.00488590	-0.00001789
6800201	41730.	-0.001462	0.001216	-0.000002	-0.00000104	0.00493066	-0.00001796
6800201	41731.	-0.001475	0.001227	-0.000002	-0.00000104	0.00497558	-0.00001801
6800201	41732.	-0.001488	0.001238	-0.000002	-0.00000105	0.00502064	-0.00001808
6800201	41733.	-0.001501	0.001249	-0.000002	-0.00000105	0.00506586	-0.00001814
6800201	41734.	-0.001514	0.001260	-0.000003	-0.00000105	0.00511122	-0.00001818
6800201	41735.	-0.001528	0.001272	-0.000002	-0.00000106	0.00515671	-0.00001824
6800201	41736.	-0.001542	0.001283	-0.000002	-0.00000106	0.00520234	-0.00001830
6800201	41737.	-0.001555	0.001294	-0.000002	-0.00000106	0.00524812	-0.00001836
6800201	41738.	-0.001568	0.001306	-0.000003	-0.00000107	0.00529404	-0.00001842
6800201	41739.	-0.001582	0.001317	-0.000002	-0.00000106	0.00534012	-0.00001847
6800201	41740.	-0.001596	0.001329	-0.000003	-0.00000107	0.00538634	-0.00001854
6800201	41741.	-0.001610	0.001339	-0.000002	-0.00000107	0.00543271	-0.00001859
6800201	41742.	-0.001624	0.001351	-0.000002	-0.00000107	0.00547923	-0.00001866
6800201	41743.	-0.001638	0.001363	-0.000002	-0.00000108	0.00552590	-0.00001872
6800201	41744.	-0.001652	0.001374	-0.000003	-0.00000108	0.00557271	-0.00001878
6800201	41745.	-0.001666	0.001385	-0.000003	-0.00000108	0.00561968	-0.00001884

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41746.	-0.001680	0.001397	-0.000002	-0.00000108	0.00566680	-0.00001889
6800201	41747.	-0.001694	0.001409	-0.000003	-0.00000109	0.00571407	-0.00001896
6800201	41748.	-0.001708	0.001420	-0.000002	-0.00000109	0.00576146	-0.00001901
6800201	41749.	-0.001722	0.001433	-0.000002	-0.00000109	0.00580901	-0.00001907
6800201	41750.	-0.001736	0.001444	-0.000002	-0.00000109	0.00585670	-0.00001912
6800201	41751.	-0.001750	0.001456	-0.000003	-0.00000110	0.00590454	-0.00001918
6800201	41752.	-0.001764	0.001468	-0.000002	-0.00000109	0.00595252	-0.00001924
6800201	41753.	-0.001779	0.001480	-0.000002	-0.00000109	0.00600065	-0.00001930
6800201	41754.	-0.001793	0.001491	-0.000002	-0.00000110	0.00604894	-0.00001937
6800201	41755.	-0.001807	0.001504	-0.000002	-0.00000111	0.00609740	-0.00001943
6800201	41756.	-0.001822	0.001516	-0.000002	-0.00000111	0.00614602	-0.00001950
6800201	41757.	-0.001837	0.001527	-0.000003	-0.00000111	0.00619482	-0.00001957
6800201	41758.	-0.001851	0.001540	-0.000002	-0.00000111	0.00624378	-0.00001963
6800201	41759.	-0.001866	0.001552	-0.000002	-0.00000112	0.00629290	-0.00001970
6800201	41760.	-0.001881	0.001564	-0.000003	-0.00000112	0.00634218	-0.00001976
6800201	41761.	-0.001896	0.001576	-0.000002	-0.00000112	0.00639162	-0.00001982
6800201	41762.	-0.001911	0.001588	-0.000002	-0.00000112	0.00644121	-0.00001989
6800201	41763.	-0.001926	0.001600	-0.000003	-0.00000112	0.00649099	-0.00001996
6800201	41764.	-0.001941	0.001613	-0.000002	-0.00000112	0.00654092	-0.00002002
6800201	41765.	-0.001955	0.001626	-0.000002	-0.00000112	0.00659099	-0.00002008
6800201	41766.	-0.001971	0.001638	-0.000002	-0.00000113	0.00664123	-0.00002015
6800201	41767.	-0.001986	0.001651	-0.000002	-0.00000113	0.00669162	-0.00002021
6800201	41768.	-0.002000	0.001663	-0.000002	-0.00000113	0.00674217	-0.00002027
6800201	41769.	-0.002016	0.001675	-0.000002	-0.00000114	0.00679287	-0.00002033
6800201	41770.	-0.002031	0.001688	-0.000002	-0.00000114	0.00684372	-0.00002039
6800201	41771.	-0.002046	0.001701	-0.000002	-0.00000114	0.00689473	-0.00002045
6800201	41772.	-0.002061	0.001713	-0.000002	-0.00000114	0.00694591	-0.00002052
6800201	41773.	-0.002077	0.001726	-0.000002	-0.00000115	0.00699723	-0.00002059
6800201	41774.	-0.002093	0.001739	-0.000002	-0.00000115	0.00704875	-0.00002066
6800201	41775.	-0.002109	0.001752	-0.000002	-0.00000115	0.00710045	-0.00002074
6800201	41776.	-0.002124	0.001764	-0.000002	-0.00000116	0.00715236	-0.00002083
6800201	41777.	-0.002140	0.001777	-0.000002	-0.00000116	0.00720446	-0.00002090
6800201	41778.	-0.002156	0.001790	-0.000002	-0.00000116	0.00725677	-0.00002099
6800201	41779.	-0.002172	0.001803	-0.000002	-0.00000117	0.00730930	-0.00002107
6800201	41780.	-0.002188	0.001816	-0.000002	-0.00000117	0.00736203	-0.00002115

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41781.	-0.002203	0.001829	-0.000002	-0.00000117	0.00741494	-0.00002123
6800201	41782.	-0.002220	0.001843	-0.000002	-0.00000118	0.00746806	-0.00002131
6800201	41783.	-0.002236	0.001855	-0.000002	-0.00000119	0.00752139	-0.00002139
6800201	41784.	-0.002252	0.001868	-0.000002	-0.00000119	0.00757492	-0.00002147
6800201	41785.	-0.002267	0.001882	-0.000002	-0.00000119	0.00762866	-0.00002156
6800201	41786.	-0.002283	0.001896	-0.000002	-0.00000119	0.00768259	-0.00002163
6800201	41787.	-0.002300	0.001909	-0.000002	-0.00000120	0.00773672	-0.00002171
6800201	41788.	-0.002316	0.001922	-0.000002	-0.00000120	0.00779103	-0.00002178
6800201	41789.	-0.002333	0.001936	-0.000002	-0.00000121	0.00784552	-0.00002185
6800201	41790.	-0.002350	0.001949	-0.000003	-0.00000121	0.00790019	-0.00002193
6800201	41791.	-0.002366	0.001963	-0.000002	-0.00000121	0.00795504	-0.00002199
6800201	41792.	-0.002383	0.001977	-0.000002	-0.00000122	0.00801005	-0.00002206
6800201	41793.	-0.002399	0.001990	-0.000002	-0.00000122	0.00806523	-0.00002214
6800201	41794.	-0.002415	0.002004	-0.000003	-0.00000123	0.00812060	-0.00002221
6800201	41795.	-0.002432	0.002018	-0.000002	-0.00000123	0.00817614	-0.00002228
6800201	41796.	-0.002450	0.002032	-0.000002	-0.00000123	0.00823188	-0.00002235
6800201	41797.	-0.002466	0.002045	-0.000002	-0.00000124	0.00828782	-0.00002244
6800201	41798.	-0.002483	0.002059	-0.000002	-0.00000124	0.00834398	-0.00002252
6800201	41799.	-0.002499	0.002073	-0.000002	-0.00000124	0.00840033	-0.00002262
6800201	41800.	-0.002516	0.002088	-0.000002	-0.00000125	0.00845692	-0.00002269
6800201	41801.	-0.002534	0.002101	-0.000002	-0.00000126	0.00851372	-0.00002279
6800201	41802.	-0.002550	0.002116	-0.000002	-0.00000126	0.00857074	-0.00002287
6800201	41803.	-0.002567	0.002129	-0.000002	-0.00000126	0.00862798	-0.00002297
6800201	41804.	-0.002584	0.002144	-0.000003	-0.00000128	0.00868545	-0.00002305
6800201	41805.	-0.002602	0.002158	-0.000002	-0.00000128	0.00874312	-0.00002314
6800201	41806.	-0.002618	0.002173	-0.000002	-0.00000128	0.00880102	-0.00002323
6800201	41807.	-0.002635	0.002187	-0.000002	-0.00000129	0.00885916	-0.00002332
6800201	41808.	-0.002653	0.002201	-0.000002	-0.00000130	0.00891752	-0.00002342
6800201	41809.	-0.002670	0.002215	-0.000002	-0.00000130	0.00897612	-0.00002351
6800201	41810.	-0.002688	0.002230	-0.000002	-0.00000131	0.00903495	-0.00002360
6800201	41811.	-0.002706	0.002244	-0.000002	-0.00000132	0.00909400	-0.00002368
6800201	41812.	-0.002723	0.002260	-0.000002	-0.00000132	0.00915326	-0.00002377
6800201	41813.	-0.002741	0.002274	-0.000002	-0.00000133	0.00921271	-0.00002385
6800201	41814.	-0.002758	0.002289	-0.000002	-0.00000133	0.00927237	-0.00002393
6800201	41815.	-0.002775	0.002304	-0.000003	-0.00000134	-0.99066779	-0.00002399

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41816.	-0.002793	0.002319	-0.000002	-0.00000135	0.00939223	-0.00002407
6800201	41817.	-0.002810	0.002334	-0.000002	-0.00000135	0.00945244	-0.00002414
6800201	41818.	-0.002828	0.002349	-0.000002	-0.00000136	0.00951284	-0.00002422
6800201	41819.	-0.002845	0.002364	-0.000003	-0.00000136	0.00957343	-0.00002429
6800201	41820.	-0.002864	0.002378	-0.000002	-0.00000137	0.00963420	-0.00002438
6800201	41821.	-0.002881	0.002394	-0.000002	-0.00000138	0.00969517	-0.00002445
6800201	41822.	-0.002899	0.002409	-0.000002	-0.00000137	0.00975632	-0.00002452
6800201	41823.	-0.002917	0.002424	-0.000002	-0.00000139	0.00981767	-0.00002461
6800201	41824.	-0.002934	0.002439	-0.000003	-0.00000139	0.00987923	-0.00002469
6800201	41825.	-0.002952	0.002454	-0.000002	-0.00000139	0.00994099	-0.00002477
6800201	41826.	-0.002970	0.002470	-0.000003	-0.00000140	0.01000295	-0.00002485
6800201	41827.	-0.002988	0.002486	-0.000003	-0.00000141	0.01006513	-0.00002494
6800201	41828.	-0.003006	0.002500	-0.000002	-0.00000142	0.01012749	-0.00002501
6800201	41829.	-0.003024	0.002516	-0.000003	-0.00000142	0.01019005	-0.00002509
6800201	41830.	-0.003042	0.002532	-0.000003	-0.00000143	0.01025283	-0.00002517
6800201	41831.	-0.003060	0.002547	-0.000003	-0.00000143	0.01031578	-0.00002524
6800201	41832.	-0.003079	0.002563	-0.000002	-0.00000144	0.01037893	-0.00002532
6800201	41833.	-0.003097	0.002579	-0.000002	-0.00000145	0.01044226	-0.00002539
6800201	41834.	-0.003115	0.002594	-0.000003	-0.00000146	0.01050577	-0.00002547
6800201	41835.	-0.003133	0.002610	-0.000003	-0.00000145	0.01056945	-0.00002553
6800201	41836.	-0.003151	0.002625	-0.000002	-0.00000147	0.01063328	-0.00002560
6800201	41837.	-0.003170	0.002642	-0.000002	-0.00000146	0.01069729	-0.00002566
6800201	41838.	-0.003188	0.002658	-0.000002	-0.00000147	0.01076143	-0.00002572
6800201	41839.	-0.003205	0.002673	-0.000002	-0.00000148	0.01082574	-0.00002578
6800201	41840.	-0.003224	0.002690	-0.000003	-0.00000148	0.01089019	-0.00002584
6800201	41841.	-0.003242	0.002705	-0.000002	-0.00000148	0.01095481	-0.00002590
6800201	41842.	-0.003261	0.002721	-0.000003	-0.00000149	0.01101956	-0.00002596
6800201	41843.	-0.003279	0.002737	-0.000003	-0.00000150	0.01108447	-0.00002602
6800201	41844.	-0.003299	0.002754	-0.000002	-0.00000150	0.01114952	-0.00002608
6800201	41845.	-0.003318	0.002770	-0.000002	-0.00000151	0.01121475	-0.00002615
6800201	41846.	-0.003336	0.002786	-0.000002	-0.00000151	0.01128013	-0.00002621
6800201	41847.	-0.003355	0.002802	-0.000002	-0.00000151	0.01134567	-0.00002628
6800201	41848.	-0.003374	0.002818	-0.000003	-0.00000152	0.01141138	-0.00002634
6800201	41849.	-0.003393	0.002835	-0.000002	-0.00000153	0.01147723	-0.00002640
6800201	41850.	-0.003411	0.002851	-0.000003	-0.00000152	0.01154326	-0.00002646

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41851.	-0.003431	0.002867	-0.000003	-0.00000154	0.01160943	-0.00002653
6800201	41852.	-0.003450	0.002884	-0.000002	-0.00000154	0.01167575	-0.00002659
6800201	41853.	-0.003469	0.002900	-0.000003	-0.00000154	0.01174223	-0.00002665
6800201	41854.	-0.003488	0.002917	-0.000002	-0.00000154	0.01180886	-0.00002670
6800201	41855.	-0.003507	0.002933	-0.000003	-0.00000154	0.01187563	-0.00002677
6800201	41856.	-0.003526	0.002950	-0.000002	-0.00000155	0.01194256	-0.00002683
6800201	41857.	-0.003546	0.002967	-0.000003	-0.00000155	0.01200964	-0.00002690
6800201	41858.	-0.003564	0.002984	-0.000002	-0.00000156	0.01207688	-0.00002695
6800201	41859.	-0.003584	0.003000	-0.000003	-0.00000157	0.01214428	-0.00002702
6800201	41860.	-0.003604	0.003016	-0.000002	-0.00000157	0.01221182	-0.00002707
6800201	41861.	-0.003624	0.003034	-0.000002	-0.00000157	0.01227951	-0.00002712
6800201	41862.	-0.003643	0.003050	-0.000002	-0.00000157	0.01234733	-0.00002718
6800201	41863.	-0.003663	0.003067	-0.000003	-0.00000158	0.01241528	-0.00002723
6800201	41864.	-0.003683	0.003084	-0.000003	-0.00000158	0.01248336	-0.00002729
6800201	41865.	-0.003703	0.003100	-0.000003	-0.00000159	0.01255158	-0.00002734
6800201	41866.	-0.003724	0.003117	-0.000002	-0.00000159	0.01261992	-0.00002738
6800201	41867.	-0.003744	0.003135	-0.000003	-0.00000159	0.01268838	-0.00002743
6800201	41868.	-0.003763	0.003152	-0.000002	-0.00000160	0.01275696	-0.00002748
6800201	41869.	-0.003784	0.003169	-0.000002	-0.00000160	0.01282564	-0.00002753
6800201	41870.	-0.003804	0.003186	-0.000003	-0.00000160	0.01289445	-0.00002757
6800201	41871.	-0.003824	0.003202	-0.000002	-0.00000160	0.01296338	-0.00002762
6800201	41872.	-0.003845	0.003220	-0.000003	-0.00000160	0.01303241	-0.00002766
6800201	41873.	-0.003865	0.003237	-0.000002	-0.00000160	0.01310156	-0.00002771
6800201	41874.	-0.003886	0.003254	-0.000003	-0.00000160	0.01317083	-0.00002776
6800201	41875.	-0.003905	0.003271	-0.000003	-0.00000161	0.01324021	-0.00002780
6800201	41876.	-0.003926	0.003289	-0.000002	-0.00000161	0.01330970	-0.00002784
6800201	41877.	-0.003947	0.003306	-0.000003	-0.00000161	0.01337930	-0.00002788
6800201	41878.	-0.003968	0.003323	-0.000003	-0.00000161	0.01344898	-0.00002792
6800201	41879.	-0.003988	0.003340	-0.000003	-0.00000161	0.01351876	-0.00002796
6800201	41880.	-0.004010	0.003358	-0.000002	-0.00000161	-0.98641136	-0.00002800
6800201	41881.	-0.004031	0.003375	-0.000003	-0.00000161	0.01365860	-0.00002803
6800201	41882.	-0.004052	0.003392	-0.000003	-0.00000162	0.01372866	-0.00002807
6800201	41883.	-0.004073	0.003410	-0.000003	-0.00000162	0.01379880	-0.00002810
6800201	41884.	-0.004094	0.003427	-0.000002	-0.00000162	0.01386902	-0.00002813
6800201	41885.	-0.004116	0.003444	-0.000002	-0.00000163	0.01393933	-0.00002817

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41886.	-0.004136	0.003462	-0.000003	-0.00000162	0.01400972	-0.00002820
6800201	41887.	-0.004157	0.003479	-0.000003	-0.00000162	0.01408019	-0.00002824
6800201	41888.	-0.004178	0.003497	-0.000003	-0.00000162	0.01415075	-0.00002827
6800201	41889.	-0.004200	0.003514	-0.000002	-0.00000163	0.01422139	-0.00002830
6800201	41890.	-0.004221	0.003532	-0.000003	-0.00000163	0.01429211	-0.00002833
6800201	41891.	-0.004242	0.003549	-0.000002	-0.00000162	0.01436291	-0.00002837
6800201	41892.	-0.004263	0.003567	-0.000003	-0.00000163	0.01443382	-0.00002841
6800201	41893.	-0.004284	0.003584	-0.000003	-0.00000163	0.01450480	-0.00002844
6800201	41894.	-0.004306	0.003602	-0.000003	-0.00000163	0.01457587	-0.00002848
6800201	41895.	-0.004327	0.003619	-0.000003	-0.00000163	0.01464703	-0.00002851
6800201	41896.	-0.004349	0.003637	-0.000003	-0.00000163	0.01471827	-0.00002855
6800201	41897.	-0.004371	0.003655	-0.000002	-0.00000163	0.01478960	-0.00002858
6800201	41898.	-0.004392	0.003672	-0.000003	-0.00000163	0.01486101	-0.00002861
6800201	41899.	-0.004413	0.003690	-0.000002	-0.00000163	0.01493250	-0.00002864
6800201	41900.	-0.004435	0.003708	-0.000003	-0.00000163	0.01500407	-0.00002867
6800201	41901.	-0.004456	0.003726	-0.000002	-0.00000164	0.01507572	-0.00002871
6800201	41902.	-0.004478	0.003744	-0.000002	-0.00000163	0.01514745	-0.00002874
6800201	41903.	-0.004500	0.003761	-0.000003	-0.00000163	0.01521927	-0.00002877
6800201	41904.	-0.004522	0.003779	-0.000003	-0.00000163	0.01529116	-0.00002880
6800201	41905.	-0.004543	0.003797	-0.000003	-0.00000164	0.01536314	-0.00002883
6800201	41906.	-0.004564	0.003815	-0.000003	-0.00000163	0.01543520	-0.00002887
6800201	41907.	-0.004585	0.003833	-0.000003	-0.00000164	0.01550732	-0.00002890
6800201	41908.	-0.004607	0.003851	-0.000003	-0.00000164	0.01557953	-0.00002893
6800201	41909.	-0.004629	0.003868	-0.000003	-0.00000163	0.01565182	-0.00002896
6800201	41910.	-0.004651	0.003886	-0.000004	-0.00000163	0.01572417	-0.00002899
6800201	41911.	-0.004671	0.003905	-0.000003	-0.00000164	0.01579659	-0.00002902
6800201	41912.	-0.004693	0.003922	-0.000003	-0.00000164	0.01586909	-0.00002904
6800201	41913.	-0.004715	0.003940	-0.000003	-0.00000163	0.01594166	-0.00002907
6800201	41914.	-0.004736	0.003958	-0.000003	-0.00000164	0.01601430	-0.00002910
6800201	41915.	-0.004757	0.003976	-0.000003	-0.00000164	0.01608702	-0.00002913
6800201	41916.	-0.004779	0.003994	-0.000003	-0.00000164	0.01615981	-0.00002916
6800201	41917.	-0.004800	0.004012	-0.000003	-0.00000164	0.01623269	-0.00002919
6800201	41918.	-0.004821	0.004030	-0.000003	-0.00000163	0.01630564	-0.00002923
6800201	41919.	-0.004844	0.004048	-0.000003	-0.00000163	0.01637867	-0.00002926
6800201	41920.	-0.004865	0.004066	-0.000003	-0.00000163	0.01645179	-0.00002929

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	41921.	-0.004887	0.004085	-0.000004	-0.00000163	0.01652500	-0.00002933
6800201	41922.	-0.004908	0.004103	-0.000004	-0.00000164	0.01659830	-0.00002937
6800201	41923.	-0.004930	0.004121	-0.000003	-0.00000164	0.01667170	-0.00002941
6800201	41924.	-0.004951	0.004139	-0.000004	-0.00000164	0.01674519	-0.00002945
6800201	41925.	-0.004973	0.004158	-0.000004	-0.00000163	0.01681878	-0.00002948
6800201	41926.	-0.004994	0.004175	-0.000003	-0.00000164	0.01689246	-0.00002952
6800201	41927.	-0.005016	0.004193	-0.000003	-0.00000164	0.01696625	-0.00002957
6800201	41928.	-0.005038	0.004212	-0.000003	-0.00000164	0.01704015	-0.00002961
6800201	41929.	-0.005059	0.004231	-0.000004	-0.00000164	0.01711417	-0.00002966
6800201	41930.	-0.005081	0.004249	-0.000003	-0.00000164	0.01718830	-0.00002971
6800201	41931.	-0.005102	0.004267	-0.000003	-0.00000164	0.01726258	-0.00002977
6800201	41932.	-0.005124	0.004285	-0.000003	-0.00000164	0.01733699	-0.00002982
6800201	41933.	-0.005146	0.004303	-0.000003	-0.00000165	0.01741155	-0.00002988
6800201	41934.	-0.005168	0.004323	-0.000003	-0.00000165	0.01748623	-0.00002993
6800201	41935.	-0.005189	0.004341	-0.000004	-0.00000164	0.01756103	-0.00002998
6800201	41936.	-0.005212	0.004359	-0.000004	-0.00000165	0.01763597	-0.00003003
6800201	41937.	-0.005234	0.004378	-0.000004	-0.00000165	0.01771104	-0.00003008
6800201	41938.	-0.005256	0.004396	-0.000004	-0.00000165	0.01778621	-0.00003012
6800201	41939.	-0.005278	0.004415	-0.000004	-0.00000165	0.01786150	-0.00003017
6800201	41940.	-0.005300	0.004434	-0.000004	-0.00000166	0.01793691	-0.00003022
6800201	41941.	-0.005323	0.004452	-0.000004	-0.00000166	0.01801241	-0.00003025
6800201	41942.	-0.005345	0.004471	-0.000004	-0.00000165	0.01808802	-0.00003030
6800201	41943.	-0.005367	0.004489	-0.000004	-0.00000166	0.01816373	-0.00003034
6800201	41944.	-0.005389	0.004508	-0.000004	-0.00000166	0.01823955	-0.00003038
6800201	41945.	-0.005411	0.004527	-0.000004	-0.00000166	-0.98168451	-0.00003042
6800201	41946.	-0.005433	0.004546	-0.000004	-0.00000166	0.01839153	-0.00003047
6800201	41947.	-0.005455	0.004565	-0.000004	-0.00000166	0.01846769	-0.00003052
6800201	41948.	-0.005478	0.004584	-0.000004	-0.00000167	0.01854399	-0.00003057
6800201	41949.	-0.005500	0.004603	-0.000004	-0.00000167	0.01862040	-0.00003063
6800201	41950.	-0.005522	0.004622	-0.000004	-0.00000167	0.01869696	-0.00003068
6800201	41951.	-0.005545	0.004641	-0.000004	-0.00000167	0.01877366	-0.00003074
6800201	41952.	-0.005567	0.004659	-0.000004	-0.00000168	0.01885052	-0.00003080
6800201	41953.	-0.005590	0.004678	-0.000005	-0.00000167	0.01892752	-0.00003087
6800201	41954.	-0.005613	0.004698	-0.000004	-0.00000168	0.01900468	-0.00003093
6800201	41955.	-0.005636	0.004716	-0.000004	-0.00000168	0.01908201	-0.00003100

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	41956.	-0.005660	0.004735	-0.000004	-0.00000168	0.01915949	-0.00003106
6800201	41957.	-0.005683	0.004754	-0.000005	-0.00000168	0.01923715	-0.00003113
6800201	41958.	-0.005706	0.004774	-0.000004	-0.00000168	0.01931496	-0.00003119
6800201	41959.	-0.005728	0.004794	-0.000004	-0.00000169	0.01939293	-0.00003126
6800201	41960.	-0.005752	0.004812	-0.000005	-0.00000169	0.01947107	-0.00003132
6800201	41961.	-0.005775	0.004832	-0.000004	-0.00000170	0.01954936	-0.00003138
6800201	41962.	-0.005798	0.004851	-0.000005	-0.00000170	0.01962779	-0.00003144
6800201	41963.	-0.005821	0.004870	-0.000004	-0.00000170	0.01970637	-0.00003149
6800201	41964.	-0.005844	0.004890	-0.000004	-0.00000170	0.01978507	-0.00003154
6800201	41965.	-0.005866	0.004910	-0.000004	-0.00000170	0.01986392	-0.00003159
6800201	41966.	-0.005890	0.004929	-0.000004	-0.00000170	0.01994290	-0.00003165
6800201	41967.	-0.005913	0.004948	-0.000004	-0.00000170	0.02002201	-0.00003171
6800201	41968.	-0.005936	0.004968	-0.000005	-0.00000171	0.02010126	-0.00003175
6800201	41969.	-0.005960	0.004987	-0.000005	-0.00000171	0.02018065	-0.00003180
6800201	41970.	-0.005984	0.005007	-0.000005	-0.00000171	0.02026015	-0.00003186
6800201	41971.	-0.006008	0.005026	-0.000005	-0.00000171	0.02033978	-0.00003192
6800201	41972.	-0.006032	0.005046	-0.000005	-0.00000172	0.02041955	-0.00003197
6800201	41973.	-0.006057	0.005065	-0.000005	-0.00000172	0.02049946	-0.00003202
6800201	41974.	-0.006081	0.005085	-0.000005	-0.00000172	0.02057950	-0.00003208
6800201	41975.	-0.006105	0.005105	-0.000005	-0.00000172	0.02065968	-0.00003214
6800201	41976.	-0.006128	0.005125	-0.000005	-0.00000172	0.02074001	-0.00003219
6800201	41977.	-0.006153	0.005144	-0.000004	-0.00000172	0.02082046	-0.00003224
6800201	41978.	-0.006176	0.005164	-0.000005	-0.00000173	0.02090106	-0.00003230
6800201	41979.	-0.006199	0.005185	-0.000005	-0.00000173	0.02098180	-0.00003236
6800201	41980.	-0.006223	0.005204	-0.000005	-0.00000174	0.02106268	-0.00003241
6800201	41981.	-0.006248	0.005224	-0.000005	-0.00000173	0.02114371	-0.00003247
6800201	41982.	-0.006271	0.005244	-0.000006	-0.00000174	0.02122489	-0.00003254
6800201	41983.	-0.006296	0.005264	-0.000005	-0.00000174	0.02130623	-0.00003260
6800201	41984.	-0.006319	0.005284	-0.000005	-0.00000174	0.02138773	-0.00003267
6800201	41985.	-0.006344	0.005304	-0.000005	-0.00000174	0.02146939	-0.00003273
6800201	41986.	-0.006369	0.005324	-0.000005	-0.00000175	0.02155122	-0.00003280
6800201	41987.	-0.006393	0.005344	-0.000005	-0.00000175	0.02163321	-0.00003286
6800201	41988.	-0.006418	0.005364	-0.000005	-0.00000175	0.02171535	-0.00003292
6800201	41989.	-0.006444	0.005385	-0.000005	-0.00000176	0.02179764	-0.00003297
6800201	41990.	-0.006468	0.005406	-0.000005	-0.00000175	0.02188005	-0.00003303

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	41991.	-0.006493	0.005426	-0.000005	-0.00000175	0.02196261	-0.00003307
6800201	41992.	-0.006518	0.005446	-0.000005	-0.00000176	0.02204528	-0.00003313
6800201	41993.	-0.006543	0.005466	-0.000006	-0.00000176	0.02212809	-0.00003318
6800201	41994.	-0.006568	0.005487	-0.000006	-0.00000176	0.02221101	-0.00003323
6800201	41995.	-0.006592	0.005507	-0.000006	-0.00000176	0.02229405	-0.00003328
6800201	41996.	-0.006617	0.005527	-0.000005	-0.00000176	0.02237722	-0.00003332
6800201	41997.	-0.006642	0.005547	-0.000005	-0.00000176	0.02246049	-0.00003337
6800201	41998.	-0.006666	0.005568	-0.000006	-0.00000177	0.02254388	-0.00003341
6800201	41999.	-0.006691	0.005589	-0.000006	-0.00000176	0.02262738	-0.00003346
6800201	42000.	-0.006716	0.005609	-0.000005	-0.00000177	0.02271099	-0.00003350
6800201	42001.	-0.006741	0.005629	-0.000006	-0.00000177	0.02279470	-0.00003354
6800201	42002.	-0.006766	0.005650	-0.000006	-0.00000177	0.02287854	-0.00003358
6800201	42003.	-0.006792	0.005671	-0.000005	-0.00000176	0.02296247	-0.00003363
6800201	42004.	-0.006818	0.005691	-0.000006	-0.00000176	0.02304652	-0.00003368
6800201	42005.	-0.006843	0.005712	-0.000006	-0.00000177	0.02313068	-0.00003372
6800201	42006.	-0.006869	0.005733	-0.000005	-0.00000177	0.02321496	-0.00003376
6800201	42007.	-0.006894	0.005754	-0.000005	-0.00000177	0.02329933	-0.00003380
6800201	42008.	-0.006921	0.005774	-0.000006	-0.00000177	0.02338380	-0.00003385
6800201	42009.	-0.006946	0.005795	-0.000006	-0.00000178	0.02346839	-0.00003389
6800201	42010.	-0.006972	0.005815	-0.000006	-0.00000177	-0.97644692	-0.00003393
6800201	42011.	-0.006997	0.005837	-0.000006	-0.00000178	0.02363788	-0.00003398
6800201	42012.	-0.007023	0.005858	-0.000006	-0.00000178	0.02372280	-0.00003402
6800201	42013.	-0.007048	0.005879	-0.000006	-0.00000178	0.02380783	-0.00003407
6800201	42014.	-0.007074	0.005899	-0.000006	-0.00000178	0.02389298	-0.00003411
6800201	42015.	-0.007100	0.005920	-0.000006	-0.00000178	0.02397822	-0.00003416
6800201	42016.	-0.007124	0.005941	-0.000007	-0.00000178	0.02406359	-0.00003420
6800201	42017.	-0.007150	0.005962	-0.000006	-0.00000178	0.02414905	-0.00003424
6800201	42018.	-0.007176	0.005983	-0.000006	-0.00000178	0.02423463	-0.00003429
6800201	42019.	-0.007202	0.006004	-0.000006	-0.00000177	0.02432031	-0.00003433
6800201	42020.	-0.007227	0.006025	-0.000006	-0.00000178	0.02440608	-0.00003437
6800201	42021.	-0.007254	0.006046	-0.000006	-0.00000178	0.02449196	-0.00003440
6800201	42022.	-0.007280	0.006067	-0.000006	-0.00000178	0.02457795	-0.00003445
6800201	42023.	-0.007307	0.006089	-0.000006	-0.00000178	0.02466401	-0.00003448
6800201	42024.	-0.007333	0.006109	-0.000006	-0.00000178	0.02475018	-0.00003452
6800201	42025.	-0.007359	0.006130	-0.000006	-0.00000177	0.02483643	-0.00003455

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42026.	-0.007386	0.006152	-0.000006	-0.00000178	0.02492277	-0.00003458
6800201	42027.	-0.007412	0.006172	-0.000006	-0.00000178	0.02500918	-0.00003462
6800201	42028.	-0.007439	0.006194	-0.000006	-0.00000178	0.02509568	-0.00003465
6800201	42029.	-0.007465	0.006216	-0.000006	-0.00000178	0.02518228	-0.00003469
6800201	42030.	-0.007491	0.006237	-0.000006	-0.00000179	0.02526895	-0.00003472
6800201	42031.	-0.007517	0.006258	-0.000006	-0.00000178	0.02535570	-0.00003476
6800201	42032.	-0.007543	0.006280	-0.000007	-0.00000178	0.02544253	-0.00003478
6800201	42033.	-0.007569	0.006301	-0.000007	-0.00000178	0.02552944	-0.00003482
6800201	42034.	-0.007594	0.006322	-0.000006	-0.00000178	0.02561644	-0.00003485
6800201	42035.	-0.007621	0.006343	-0.000006	-0.00000179	0.02570353	-0.00003488
6800201	42036.	-0.007646	0.006365	-0.000006	-0.00000178	0.02579071	-0.00003492
6800201	42037.	-0.007673	0.006386	-0.000006	-0.00000178	0.02587797	-0.00003496
6800201	42038.	-0.007700	0.006407	-0.000006	-0.00000178	0.02596534	-0.00003500
6800201	42039.	-0.007726	0.006428	-0.000006	-0.00000178	0.02605280	-0.00003504
6800201	42040.	-0.007753	0.006451	-0.000006	-0.00000178	0.02614038	-0.00003509
6800201	42041.	-0.007779	0.006472	-0.000006	-0.00000178	0.02622804	-0.00003512
6800201	42042.	-0.007806	0.006493	-0.000006	-0.00000179	0.02631582	-0.00003516
6800201	42043.	-0.007833	0.006514	-0.000006	-0.00000178	0.02640368	-0.00003520
6800201	42044.	-0.007859	0.006536	-0.000007	-0.00000178	0.02649164	-0.00003524
6800201	42045.	-0.007886	0.006558	-0.000006	-0.00000179	0.02657969	-0.00003527
6800201	42046.	-0.007912	0.006580	-0.000007	-0.00000178	0.02666783	-0.00003531
6800201	42047.	-0.007939	0.006601	-0.000007	-0.00000179	0.02675606	-0.00003535
6800201	42048.	-0.007965	0.006622	-0.000007	-0.00000179	0.02684438	-0.00003538
6800201	42049.	-0.007991	0.006645	-0.000007	-0.00000179	0.02693279	-0.00003542
6800201	42050.	-0.008018	0.006666	-0.000006	-0.00000179	0.02702127	-0.00003544
6800201	42051.	-0.008043	0.006688	-0.000007	-0.00000179	0.02710984	-0.00003548
6800201	42052.	-0.008069	0.006709	-0.000007	-0.00000178	0.02719848	-0.00003551
6800201	42053.	-0.008095	0.006732	-0.000006	-0.00000179	0.02728722	-0.00003555
6800201	42054.	-0.008121	0.006753	-0.000007	-0.00000178	0.02737602	-0.00003558
6800201	42055.	-0.008148	0.006775	-0.000007	-0.00000179	0.02746492	-0.00003561
6800201	42056.	-0.008174	0.006796	-0.000007	-0.00000179	0.02755390	-0.00003564
6800201	42057.	-0.008200	0.006818	-0.000006	-0.00000179	0.02764296	-0.00003568
6800201	42058.	-0.008227	0.006840	-0.000006	-0.00000179	0.02773211	-0.00003571
6800201	42059.	-0.008253	0.006862	-0.000007	-0.00000179	0.02782135	-0.00003575
6800201	42060.	-0.008281	0.006884	-0.000007	-0.00000179	0.02791069	-0.00003579

EPOCH	GEOS-B		DRAG PERTURBATIONS			MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION	ECCENTRICITY		
6800201	42061.	-0.008308	0.006906	-0.000007	-0.00000179	0.02800013	-0.00003583
6800201	42062.	-0.008334	0.006928	-0.000007	-0.00000179	0.02808966	-0.00003587
6800201	42063.	-0.008360	0.006950	-0.000007	-0.00000179	0.02817929	-0.00003591
6800201	42064.	-0.008386	0.006972	-0.000007	-0.00000180	0.02826903	-0.00003595
6800201	42065.	-0.008412	0.006994	-0.000007	-0.00000180	0.02835888	-0.00003600
6800201	42066.	-0.008438	0.007015	-0.000007	-0.00000180	0.02844882	-0.00003604
6800201	42067.	-0.008465	0.007038	-0.000007	-0.00000180	0.02853887	-0.00003607
6800201	42068.	-0.008490	0.007060	-0.000006	-0.00000180	0.02862902	-0.00003612
6800201	42069.	-0.008517	0.007082	-0.000006	-0.00000180	0.02871927	-0.00003615
6800201	42070.	-0.008543	0.007104	-0.000006	-0.00000181	0.02880961	-0.00003619
6800201	42071.	-0.008568	0.007126	-0.000007	-0.00000181	0.02890004	-0.00003623
6800201	42072.	-0.008595	0.007148	-0.000007	-0.00000180	0.02899058	-0.00003627
6800201	42073.	-0.008621	0.007170	-0.000006	-0.00000181	0.02908121	-0.00003630
6800201	42074.	-0.008648	0.007192	-0.000007	-0.00000181	0.02917194	-0.00003635
6800201	42075.	-0.008675	0.007214	-0.000007	-0.00000181	-0.97073722	-0.00003639
6800201	42076.	-0.008702	0.007237	-0.000007	-0.00000181	0.02935370	-0.00003642
6800201	42077.	-0.008730	0.007259	-0.000007	-0.00000181	0.02944473	-0.00003647
6800201	42078.	-0.008757	0.007281	-0.000008	-0.00000182	0.02953586	-0.00003651
6800201	42079.	-0.008783	0.007303	-0.000007	-0.00000182	0.02962708	-0.00003654
6800201	42080.	-0.008811	0.007327	-0.000008	-0.00000182	0.02971839	-0.00003659
6800201	42081.	-0.008837	0.007349	-0.000007	-0.00000182	-0.97019020	-0.00003662
6800201	42082.	-0.008864	0.007371	-0.000007	-0.00000183	0.02990130	-0.00003665
6800201	42083.	-0.008890	0.007393	-0.000007	-0.00000182	0.02999290	-0.00003670
6800201	42084.	-0.008917	0.007415	-0.000007	-0.00000182	0.03008459	-0.00003674
6800201	42085.	-0.008944	0.007438	-0.000007	-0.00000183	0.03017639	-0.00003677
6800201	42086.	-0.008970	0.007460	-0.000007	-0.00000184	0.03026828	-0.00003682
6800201	42087.	-0.008997	0.007484	-0.000007	-0.00000184	0.03036027	-0.00003686
6800201	42088.	-0.009024	0.007505	-0.000007	-0.00000184	0.03045237	-0.00003689
6800201	42089.	-0.009052	0.007528	-0.000007	-0.00000185	0.03054458	-0.00003694
6800201	42090.	-0.009079	0.007551	-0.000007	-0.00000185	0.03063689	-0.00003698
6800201	42091.	-0.009107	0.007573	-0.000008	-0.00000185	0.03072932	-0.00003703
6800201	42092.	-0.009135	0.007596	-0.000008	-0.00000185	0.03082185	-0.00003708
6800201	42093.	-0.009163	0.007619	-0.000008	-0.00000185	0.03091450	-0.00003712
6800201	42094.	-0.009191	0.007641	-0.000007	-0.00000185	0.03100725	-0.00003716
6800201	42095.	-0.009219	0.007664	-0.000007	-0.00000186	0.03110012	-0.00003720

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42096.	-0.009247	0.007686	-0.000007	-0.00000186	0.03119310	-0.00003725
6800201	42097.	-0.009276	0.007709	-0.000007	-0.00000186	0.03128619	-0.00003730
6800201	42098.	-0.009303	0.007733	-0.000007	-0.00000186	0.03137940	-0.00003734
6800201	42099.	-0.009332	0.007755	-0.000007	-0.00000187	0.03147273	-0.00003739
6800201	42100.	-0.009360	0.007777	-0.000007	-0.00000187	0.03156618	-0.00003744
6800201	42101.	-0.009388	0.007800	-0.000007	-0.00000187	0.03165973	-0.00003748
6800201	42102.	-0.009416	0.007824	-0.000007	-0.00000188	0.03175342	-0.00003754
6800201	42103.	-0.009444	0.007846	-0.000007	-0.00000188	0.03184722	-0.00003758
6800201	42104.	-0.009473	0.007869	-0.000007	-0.00000188	0.03194115	-0.00003763
6800201	42105.	-0.009501	0.007892	-0.000007	-0.00000189	0.03203520	-0.00003768
6800201	42106.	-0.009530	0.007916	-0.000008	-0.00000189	0.03212937	-0.00003773
6800201	42107.	-0.009559	0.007938	-0.000008	-0.00000189	0.03222366	-0.00003778
6800201	42108.	-0.009587	0.007962	-0.000007	-0.00000189	0.03231808	-0.00003783
6800201	42109.	-0.009617	0.007985	-0.000007	-0.00000189	0.03241260	-0.00003787
6800201	42110.	-0.009647	0.008008	-0.000007	-0.00000189	0.03250725	-0.00003792
6800201	42111.	-0.009676	0.008031	-0.000008	-0.00000190	0.03260201	-0.00003796
6800201	42112.	-0.009706	0.008054	-0.000007	-0.00000190	0.03269689	-0.00003802
6800201	42113.	-0.009737	0.008078	-0.000007	-0.00000190	0.03279189	-0.00003806
6800201	42114.	-0.009766	0.008101	-0.000007	-0.00000190	0.03288701	-0.00003811
6800201	42115.	-0.009796	0.008124	-0.000007	-0.00000191	0.03298224	-0.00003816
6800201	42116.	-0.009825	0.008147	-0.000007	-0.00000191	0.03307760	-0.00003821
6800201	42117.	-0.009854	0.008170	-0.000007	-0.00000191	0.03317308	-0.00003825
6800201	42118.	-0.009883	0.008194	-0.000007	-0.00000191	0.03326868	-0.00003831
6800201	42119.	-0.009912	0.008218	-0.000007	-0.00000192	0.03336441	-0.00003836
6800201	42120.	-0.009941	0.008241	-0.000007	-0.00000192	0.03346028	-0.00003841
6800201	42121.	-0.009971	0.008265	-0.000007	-0.00000192	0.03355627	-0.00003846
6800201	42122.	-0.010000	0.008287	-0.000008	-0.00000192	0.03365238	-0.00003851
6800201	42123.	-0.010031	0.008311	-0.000007	-0.00000192	0.03374862	-0.00003855
6800201	42124.	-0.010060	0.008335	-0.000008	-0.00000192	0.03384499	-0.00003860
6800201	42125.	-0.010090	0.008358	-0.000007	-0.00000193	0.03394148	-0.00003865
6800201	42126.	-0.010119	0.008383	-0.000008	-0.00000193	0.03403809	-0.00003871
6800201	42127.	-0.010150	0.008406	-0.000007	-0.00000193	0.03413483	-0.00003876
6800201	42128.	-0.010179	0.008430	-0.000007	-0.00000194	0.03423169	-0.00003881
6800201	42129.	-0.010210	0.008453	-0.000007	-0.00000193	0.03432868	-0.00003886
6800201	42130.	-0.010239	0.008477	-0.000007	-0.00000194	0.03442581	-0.00003891

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42131.	-0.010269	0.008501	-0.000007	-0.00000194	0.03452306	-0.00003896
6800201	42132.	-0.010299	0.008525	-0.000007	-0.00000194	0.03462044	-0.00003901
6800201	42133.	-0.010328	0.008549	-0.000006	-0.00000194	0.03471795	-0.00003906
6800201	42134.	-0.010358	0.008573	-0.000007	-0.00000194	0.03481556	-0.00003911
6800201	42135.	-0.010387	0.008597	-0.000007	-0.00000194	0.03491330	-0.00003916
6800201	42136.	-0.010416	0.008620	-0.000007	-0.00000194	0.03501117	-0.00003920
6800201	42137.	-0.010445	0.008645	-0.000007	-0.00000194	0.03510915	-0.00003926
6800201	42138.	-0.010475	0.008669	-0.000007	-0.00000195	0.03520725	-0.00003930
6800201	42139.	-0.010504	0.008693	-0.000007	-0.00000194	0.03530547	-0.00003935
6800201	42140.	-0.010533	0.008717	-0.000007	-0.00000194	-0.96459619	-0.00003939
6800201	42141.	-0.010562	0.008741	-0.000007	-0.00000195	0.03550226	-0.00003944
6800201	42142.	-0.010591	0.008766	-0.000006	-0.00000195	0.03560083	-0.00003949
6800201	42143.	-0.010620	0.008789	-0.000006	-0.00000195	0.03569953	-0.00003954
6800201	42144.	-0.010649	0.008814	-0.000007	-0.00000195	0.03579835	-0.00003959
6800201	42145.	-0.010678	0.008838	-0.000007	-0.00000196	0.03589728	-0.00003964
6800201	42146.	-0.010707	0.008862	-0.000006	-0.00000195	-0.96400365	-0.00003969
6800201	42147.	-0.010735	0.008887	-0.000007	-0.00000196	0.03609553	-0.00003974
6800201	42148.	-0.010765	0.008911	-0.000006	-0.00000196	0.03619485	-0.00003979
6800201	42149.	-0.010794	0.008936	-0.000006	-0.00000196	0.03629430	-0.00003985
6800201	42150.	-0.010824	0.008960	-0.000006	-0.00000196	0.03639388	-0.00003991
6800201	42151.	-0.010853	0.008984	-0.000006	-0.00000196	0.03649360	-0.00003996
6800201	42152.	-0.010881	0.009010	-0.000007	-0.00000196	0.03659348	-0.00004001
6800201	42153.	-0.010911	0.009034	-0.000007	-0.00000196	0.03669350	-0.00004008
6800201	42154.	-0.010939	0.009058	-0.000007	-0.00000196	0.03679368	-0.00004015
6800201	42155.	-0.010969	0.009083	-0.000007	-0.00000197	0.03689402	-0.00004021
6800201	42156.	-0.010998	0.009108	-0.000006	-0.00000197	0.03699453	-0.00004027
6800201	42157.	-0.011025	0.009132	-0.000006	-0.00000197	0.03709518	-0.00004033
6800201	42158.	-0.011055	0.009157	-0.000007	-0.00000197	0.03719598	-0.00004040
6800201	42159.	-0.011083	0.009182	-0.000006	-0.00000197	0.03729692	-0.00004045
6800201	42160.	-0.011111	0.009207	-0.000006	-0.00000198	0.03739800	-0.00004050
6800201	42161.	-0.011140	0.009232	-0.000006	-0.00000198	0.03749920	-0.00004055
6800201	42162.	-0.011168	0.009257	-0.000006	-0.00000198	0.03760053	-0.00004060
6800201	42163.	-0.011197	0.009282	-0.000006	-0.00000198	0.03770199	-0.00004064
6800201	42164.	-0.011226	0.009307	-0.000006	-0.00000198	0.03780355	-0.00004070
6800201	42165.	-0.011256	0.009332	-0.000006	-0.00000198	0.03790524	-0.00004074

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42166.	-0.011285	0.009358	-0.000006	-0.00000198	0.03800706	-0.00004079
6800201	42167.	-0.011315	0.009382	-0.000006	-0.00000199	0.03810901	-0.00004085
6800201	42168.	-0.011344	0.009408	-0.000006	-0.00000200	0.03821108	-0.00004090
6800201	42169.	-0.011373	0.009433	-0.000007	-0.00000200	0.03831327	-0.00004095
6800201	42170.	-0.011404	0.009458	-0.000006	-0.00000199	0.03841561	-0.00004101
6800201	42171.	-0.011433	0.009483	-0.000006	-0.00000200	0.03851810	-0.00004107
6800201	42172.	-0.011462	0.009509	-0.000005	-0.00000201	0.03862075	-0.00004114
6800201	42173.	-0.011492	0.009534	-0.000006	-0.00000201	0.03872358	-0.00004121
6800201	42174.	-0.011521	0.009560	-0.000005	-0.00000201	0.03882658	-0.00004128
6800201	42175.	-0.011551	0.009585	-0.000005	-0.00000202	0.03892977	-0.00004135
6800201	42176.	-0.011581	0.009611	-0.000006	-0.00000202	0.03903312	-0.00004142
6800201	42177.	-0.011610	0.009636	-0.000006	-0.00000203	0.03913665	-0.00004149
6800201	42178.	-0.011641	0.009662	-0.000006	-0.00000203	0.03924035	-0.00004155
6800201	42179.	-0.011671	0.009687	-0.000005	-0.00000203	0.03934421	-0.00004162
6800201	42180.	-0.011701	0.009713	-0.000005	-0.00000204	0.03944824	-0.00004168
6800201	42181.	-0.011732	0.009739	-0.000006	-0.00000204	0.03955241	-0.00004174
6800201	42182.	-0.011763	0.009765	-0.000006	-0.00000204	0.03965673	-0.00004180
6800201	42183.	-0.011793	0.009790	-0.000006	-0.00000204	0.03976121	-0.00004186
6800201	42184.	-0.011825	0.009817	-0.000005	-0.00000204	0.03986582	-0.00004191
6800201	42185.	-0.011857	0.009842	-0.000006	-0.00000204	0.03997057	-0.00004197
6800201	42186.	-0.011888	0.009868	-0.000006	-0.00000205	0.04007548	-0.00004202
6800201	42187.	-0.011920	0.009894	-0.000006	-0.00000206	0.04018050	-0.00004208
6800201	42188.	-0.011952	0.009920	-0.000005	-0.00000206	0.04028566	-0.00004213
6800201	42189.	-0.011984	0.009946	-0.000005	-0.00000206	0.04039094	-0.00004218
6800201	42190.	-0.012015	0.009972	-0.000005	-0.00000206	0.04049635	-0.00004223
6800201	42191.	-0.012047	0.009998	-0.000005	-0.00000207	0.04060189	-0.00004228
6800201	42192.	-0.012078	0.010024	-0.000005	-0.00000208	0.04070756	-0.00004233
6800201	42193.	-0.012110	0.010051	-0.000005	-0.00000207	0.04081335	-0.00004239
6800201	42194.	-0.012141	0.010076	-0.000005	-0.00000209	0.04091928	-0.00004244
6800201	42195.	-0.012173	0.010103	-0.000006	-0.00000209	0.04102532	-0.00004249
6800201	42196.	-0.012204	0.010129	-0.000005	-0.00000209	0.04113151	-0.00004255
6800201	42197.	-0.012237	0.010155	-0.000005	-0.00000209	0.04123784	-0.00004260
6800201	42198.	-0.012270	0.010182	-0.000006	-0.00000210	0.04134431	-0.00004266
6800201	42199.	-0.012303	0.010208	-0.000005	-0.00000210	0.04145093	-0.00004272
6800201	42200.	-0.012336	0.010235	-0.000006	-0.00000210	0.04155772	-0.00004278

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	42201.	-0.012370	0.010261	-0.000005	-0.00000211	0.04166466	-0.00004285
6800201	42202.	-0.012404	0.010287	-0.000005	-0.00000211	0.04177178	-0.00004292
6800201	42203.	-0.012436	0.010314	-0.000005	-0.00000212	0.04187906	-0.00004299
6800201	42204.	-0.012470	0.010341	-0.000005	-0.00000212	0.04198649	-0.00004305
6800201	42205.	-0.012503	0.010368	-0.000005	-0.00000213	-0.95790591	-0.00004311
6800201	42206.	-0.012537	0.010394	-0.000004	-0.00000213	0.04220186	-0.00004317
6800201	42207.	-0.012570	0.010421	-0.000004	-0.00000214	0.04230977	-0.00004324
6800201	42208.	-0.012602	0.010448	-0.000005	-0.00000214	0.04241784	-0.00004330
6800201	42209.	-0.012635	0.010475	-0.000005	-0.00000215	0.04252607	-0.00004337
6800201	42210.	-0.012669	0.010501	-0.000005	-0.00000215	0.04263447	-0.00004343
6800201	42211.	-0.012702	0.010529	-0.000005	-0.00000216	-0.95725697	-0.00004350
6800201	42212.	-0.012735	0.010556	-0.000005	-0.00000216	0.04285174	-0.00004356
6800201	42213.	-0.012768	0.010582	-0.000005	-0.00000217	0.04296063	-0.00004363
6800201	42214.	-0.012801	0.010610	-0.000005	-0.00000217	0.04306966	-0.00004369
6800201	42215.	-0.012835	0.010637	-0.000005	-0.00000217	0.04317884	-0.00004375
6800201	42216.	-0.012868	0.010663	-0.000005	-0.00000218	0.04328818	-0.00004380
6800201	42217.	-0.012902	0.010691	-0.000005	-0.00000218	0.04339765	-0.00004386
6800201	42218.	-0.012936	0.010718	-0.000005	-0.00000219	0.04350728	-0.00004392
6800201	42219.	-0.012971	0.010745	-0.000004	-0.00000219	0.04361704	-0.00004398
6800201	42220.	-0.013005	0.010772	-0.000004	-0.00000219	0.04372696	-0.00004404
6800201	42221.	-0.013039	0.010800	-0.000004	-0.00000220	0.04383700	-0.00004409
6800201	42222.	-0.013074	0.010827	-0.000004	-0.00000221	0.04394718	-0.00004414
6800201	42223.	-0.013108	0.010855	-0.000004	-0.00000220	0.04405749	-0.00004420
6800201	42224.	-0.013142	0.010882	-0.000005	-0.00000221	0.04416795	-0.00004425
6800201	42225.	-0.013175	0.010909	-0.000004	-0.00000221	0.04427853	-0.00004430
6800201	42226.	-0.013208	0.010937	-0.000004	-0.00000222	0.04438926	-0.00004436
6800201	42227.	-0.013241	0.010964	-0.000004	-0.00000222	0.04450012	-0.00004441
6800201	42228.	-0.013275	0.010992	-0.000004	-0.00000223	0.04461112	-0.00004447
6800201	42229.	-0.013308	0.011019	-0.000005	-0.00000223	0.04472225	-0.00004452
6800201	42230.	-0.013341	0.011047	-0.000004	-0.00000223	0.04483353	-0.00004459
6800201	42231.	-0.013375	0.011074	-0.000004	-0.00000224	0.04494497	-0.00004465
6800201	42232.	-0.013409	0.011103	-0.000004	-0.00000224	0.04505658	-0.00004472
6800201	42233.	-0.013442	0.011130	-0.000004	-0.00000225	0.04516835	-0.00004479
6800201	42234.	-0.013476	0.011158	-0.000004	-0.00000225	0.04528031	-0.00004487
6800201	42235.	-0.013510	0.011186	-0.000004	-0.00000226	0.04539248	-0.00004495

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42236.	-0.013544	0.011214	-0.000004	-0.00000227	0.04550484	-0.00004502
6800201	42237.	-0.013578	0.011242	-0.000003	-0.00000227	0.04561737	-0.00004509
6800201	42238.	-0.013613	0.011270	-0.000004	-0.00000227	0.04573007	-0.00004516
6800201	42239.	-0.013647	0.011298	-0.000003	-0.00000227	0.04584292	-0.00004522
6800201	42240.	-0.013680	0.011326	-0.000004	-0.00000228	0.04595592	-0.00004527
6800201	42241.	-0.013714	0.011354	-0.000003	-0.00000228	0.04606905	-0.00004532
6800201	42242.	-0.013749	0.011382	-0.000004	-0.00000228	0.04618231	-0.00004537
6800201	42243.	-0.013782	0.011411	-0.000004	-0.00000230	0.04629568	-0.00004542
6800201	42244.	-0.013815	0.011438	-0.000004	-0.00000229	0.04640918	-0.00004547
6800201	42245.	-0.013848	0.011467	-0.000004	-0.00000230	0.04652280	-0.00004552
6800201	42246.	-0.013881	0.011496	-0.000004	-0.00000230	0.04663654	-0.00004557
6800201	42247.	-0.013914	0.011524	-0.000003	-0.00000230	0.04675041	-0.00004562
6800201	42248.	-0.013946	0.011553	-0.000003	-0.00000230	0.04686441	-0.00004567
6800201	42249.	-0.013979	0.011581	-0.000003	-0.00000231	0.04697852	-0.00004572
6800201	42250.	-0.014012	0.011609	-0.000003	-0.00000232	0.04709277	-0.00004577
6800201	42251.	-0.014046	0.011638	-0.000003	-0.00000231	0.04720712	-0.00004582
6800201	42252.	-0.014079	0.011666	-0.000003	-0.00000232	0.04732161	-0.00004586
6800201	42253.	-0.014113	0.011694	-0.000003	-0.00000232	0.04743624	-0.00004592
6800201	42254.	-0.014147	0.011723	-0.000003	-0.00000232	0.04755099	-0.00004597
6800201	42255.	-0.014181	0.011752	-0.000003	-0.00000232	0.04766585	-0.00004602
6800201	42256.	-0.014215	0.011780	-0.000003	-0.00000233	0.04778085	-0.00004606
6800201	42257.	-0.014249	0.011809	-0.000003	-0.00000234	0.04789595	-0.00004612
6800201	42258.	-0.014282	0.011838	-0.000003	-0.00000234	0.04801118	-0.00004616
6800201	42259.	-0.014316	0.011867	-0.000003	-0.00000234	0.04812651	-0.00004620
6800201	42260.	-0.014349	0.011896	-0.000003	-0.00000234	0.04824196	-0.00004624
6800201	42261.	-0.014383	0.011925	-0.000003	-0.00000234	0.04835750	-0.00004628
6800201	42262.	-0.014415	0.011953	-0.000003	-0.00000235	0.04847315	-0.00004633
6800201	42263.	-0.014448	0.011982	-0.000003	-0.00000235	0.04858891	-0.00004638
6800201	42264.	-0.014480	0.012010	-0.000003	-0.00000235	0.04870479	-0.00004642
6800201	42265.	-0.014513	0.012040	-0.000002	-0.00000236	0.04882076	-0.00004646
6800201	42266.	-0.014545	0.012069	-0.000002	-0.00000235	0.04893683	-0.00004650
6800201	42267.	-0.014578	0.012098	-0.000003	-0.00000235	0.04905301	-0.00004654
6800201	42268.	-0.014611	0.012126	-0.000002	-0.00000236	0.04916930	-0.00004658
6800201	42269.	-0.014645	0.012156	-0.000002	-0.00000235	0.04928570	-0.00004662
6800201	42270.	-0.014678	0.012185	-0.000002	-0.00000236	-0.95059781	-0.00004667

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42271.	-0.014712	0.012214	-0.000002	-0.00000236	0.04951879	-0.00004670
6800201	42272.	-0.014746	0.012243	-0.000002	-0.00000237	0.04963549	-0.00004675
6800201	42273.	-0.014780	0.012272	-0.000003	-0.00000237	0.04975231	-0.00004680
6800201	42274.	-0.014814	0.012302	-0.000002	-0.00000237	0.04986923	-0.00004683
6800201	42275.	-0.014849	0.012331	-0.000002	-0.00000237	0.04998626	-0.00004688
6800201	42276.	-0.014882	0.012360	-0.000002	-0.00000238	-0.94989661	-0.00004692
6800201	42277.	-0.014916	0.012389	-0.000003	-0.00000237	0.05022064	-0.00004696
6800201	42278.	-0.014950	0.012419	-0.000002	-0.00000238	0.05033797	-0.00004701
6800201	42279.	-0.014982	0.012449	-0.000002	-0.00000238	0.05045543	-0.00004705
6800201	42280.	-0.015015	0.012478	-0.000002	-0.00000238	0.05057298	-0.00004709
6800201	42281.	-0.015048	0.012507	-0.000001	-0.00000238	0.05069064	-0.00004713
6800201	42282.	-0.015081	0.012536	-0.000002	-0.00000238	-0.94919160	-0.00004717
6800201	42283.	-0.015113	0.012566	-0.000002	-0.00000239	0.05092626	-0.00004721
6800201	42284.	-0.015147	0.012595	-0.000002	-0.00000238	0.05104421	-0.00004725
6800201	42285.	-0.015180	0.012624	-0.000001	-0.00000239	0.05116227	-0.00004729
6800201	42286.	-0.015214	0.012654	-0.000001	-0.00000239	0.05128041	-0.00004732
6800201	42287.	-0.015249	0.012684	-0.000001	-0.00000239	0.05139864	-0.00004736
6800201	42288.	-0.015284	0.012713	-0.000002	-0.00000239	0.05151696	-0.00004739
6800201	42289.	-0.015318	0.012743	-0.000002	-0.00000239	0.05163537	-0.00004743
6800201	42290.	-0.015353	0.012772	-0.000002	-0.00000240	0.05175388	-0.00004746
6800201	42291.	-0.015389	0.012802	-0.000002	-0.00000240	0.05187247	-0.00004750
6800201	42292.	-0.015424	0.012832	-0.000002	-0.00000240	0.05199115	-0.00004753
6800201	42293.	-0.015459	0.012862	-0.000002	-0.00000240	0.05210992	-0.00004757
6800201	42294.	-0.015493	0.012892	-0.000002	-0.00000240	0.05222880	-0.00004762
6800201	42295.	-0.015527	0.012922	-0.000002	-0.00000240	0.05234776	-0.00004765
6800201	42296.	-0.015561	0.012951	-0.000001	-0.00000240	0.05246681	-0.00004769
6800201	42297.	-0.015596	0.012981	-0.000001	-0.00000241	0.05258597	-0.00004773
6800201	42298.	-0.015630	0.013011	-0.000002	-0.00000241	0.05270522	-0.00004777
6800201	42299.	-0.015663	0.013040	-0.000001	-0.00000241	0.05282457	-0.00004781
6800201	42300.	-0.015697	0.013071	-0.000001	-0.00000241	0.05294403	-0.00004785
6800201	42301.	-0.015731	0.013100	-0.000002	-0.00000242	0.05306358	-0.00004790
6800201	42302.	-0.015765	0.013130	-0.000001	-0.00000241	0.05318326	-0.00004794
6800201	42303.	-0.015799	0.013160	-0.000002	-0.00000241	0.05330304	-0.00004799
6800201	42304.	-0.015835	0.013190	-0.000001	-0.00000242	0.05342296	-0.00004804
6800201	42305.	-0.015871	0.013221	-0.000002	-0.00000242	0.05354300	-0.00004808

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42306.	-0.015907	0.013251	-0.000002	-0.00000242	0.05366316	-0.00004813
6800201	42307.	-0.015944	0.013280	-0.000002	-0.00000242	0.05378346	-0.00004819
6800201	42308.	-0.015980	0.013311	-0.000002	-0.00000242	0.05390388	-0.00004824
6800201	42309.	-0.016016	0.013341	-0.000002	-0.00000242	0.05402443	-0.00004829
6800201	42310.	-0.016052	0.013371	-0.000002	-0.00000242	0.05414510	-0.00004834
6800201	42311.	-0.016088	0.013401	-0.000002	-0.00000243	0.05426591	-0.00004840
6800201	42312.	-0.016123	0.013432	-0.000002	-0.00000243	0.05438683	-0.00004844
6800201	42313.	-0.016158	0.013462	-0.000002	-0.00000243	0.05450788	-0.00004849
6800201	42314.	-0.016193	0.013492	-0.000001	-0.00000243	0.05462904	-0.00004854
6800201	42315.	-0.016228	0.013523	-0.000002	-0.00000244	0.05475033	-0.00004858
6800201	42316.	-0.016263	0.013553	-0.000002	-0.00000244	0.05487172	-0.00004863
6800201	42317.	-0.016298	0.013583	-0.000002	-0.00000244	0.05499324	-0.00004868
6800201	42318.	-0.016334	0.013613	-0.000002	-0.00000244	0.05511487	-0.00004873
6800201	42319.	-0.016370	0.013644	-0.000002	-0.00000244	0.05523662	-0.00004878
6800201	42320.	-0.016407	0.013674	-0.000003	-0.00000244	0.05535850	-0.00004882
6800201	42321.	-0.016443	0.013705	-0.000003	-0.00000245	0.05548052	-0.00004888
6800201	42322.	-0.016479	0.013736	-0.000003	-0.00000244	0.05560267	-0.00004893
6800201	42323.	-0.016517	0.013766	-0.000003	-0.00000245	0.05572497	-0.00004900
6800201	42324.	-0.016554	0.013797	-0.000003	-0.00000245	0.05584741	-0.00004905
6800201	42325.	-0.016593	0.013828	-0.000003	-0.00000246	0.05597001	-0.00004912
6800201	42326.	-0.016629	0.013858	-0.000002	-0.00000245	0.05609275	-0.00004918
6800201	42327.	-0.016667	0.013888	-0.000002	-0.00000246	0.05621567	-0.00004925
6800201	42328.	-0.016704	0.013920	-0.000002	-0.00000247	0.05633876	-0.00004932
6800201	42329.	-0.016742	0.013950	-0.000002	-0.00000247	-0.94353796	-0.00004940
6800201	42330.	-0.016778	0.013981	-0.000002	-0.00000247	0.05658551	-0.00004947
6800201	42331.	-0.016814	0.014012	-0.000002	-0.00000248	0.05670919	-0.00004956
6800201	42332.	-0.016851	0.014043	-0.000002	-0.00000248	0.05683309	-0.00004966
6800201	42333.	-0.016887	0.014074	-0.000002	-0.00000248	0.05695722	-0.00004974
6800201	42334.	-0.016924	0.014105	-0.000002	-0.00000248	0.05708158	-0.00004984
6800201	42335.	-0.016962	0.014135	-0.000004	-0.00000249	-0.94279381	-0.00004994
6800201	42336.	-0.016999	0.014167	-0.000003	-0.00000250	0.05733104	-0.00005003
6800201	42337.	-0.017036	0.014198	-0.000003	-0.00000249	0.05745612	-0.00005012
6800201	42338.	-0.017075	0.014229	-0.000004	-0.00000250	0.05758140	-0.00005021
6800201	42339.	-0.017113	0.014261	-0.000004	-0.00000250	0.05770688	-0.00005028
6800201	42340.	-0.017151	0.014291	-0.000003	-0.00000251	0.05783254	-0.00005035

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	42341.	-0.017190	0.014323	-0.000003	-0.00000251	-0.94204162	-0.00005042
6800201	42342.	-0.017229	0.014354	-0.000003	-0.00000251	0.05808439	-0.00005049
6800201	42343.	-0.017267	0.014386	-0.000003	-0.00000252	0.05821058	-0.00005056
6800201	42344.	-0.017306	0.014417	-0.000003	-0.00000252	0.05833692	-0.00005062
6800201	42345.	-0.017344	0.014448	-0.000004	-0.00000253	0.05846345	-0.00005069
6800201	42346.	-0.017383	0.014480	-0.000004	-0.00000253	0.05859014	-0.00005077
6800201	42347.	-0.017420	0.014512	-0.000003	-0.00000254	-0.94128298	-0.00005084
6800201	42348.	-0.017458	0.014544	-0.000003	-0.00000254	0.05884409	-0.00005092
6800201	42349.	-0.017496	0.014576	-0.000004	-0.00000255	0.05897136	-0.00005100
6800201	42350.	-0.017534	0.014607	-0.000004	-0.00000255	0.05909881	-0.00005107
6800201	42351.	-0.017571	0.014638	-0.000004	-0.00000255	0.05922648	-0.00005115
6800201	42352.	-0.017609	0.014670	-0.000005	-0.00000256	0.05935434	-0.00005123
6800201	42353.	-0.017647	0.014702	-0.000005	-0.00000257	0.05948241	-0.00005133
6800201	42354.	-0.017685	0.014734	-0.000005	-0.00000257	0.05961070	-0.00005141
6800201	42355.	-0.017725	0.014766	-0.000005	-0.00000257	0.05973922	-0.00005150
6800201	42356.	-0.017764	0.014798	-0.000005	-0.00000258	0.05986798	-0.00005161
6800201	42357.	-0.017802	0.014830	-0.000004	-0.00000259	0.05999699	-0.00005170
6800201	42358.	-0.017841	0.014862	-0.000004	-0.00000260	0.06012624	-0.00005180
6800201	42359.	-0.017881	0.014894	-0.000004	-0.00000260	0.06025575	-0.00005190
6800201	42360.	-0.017919	0.014926	-0.000004	-0.00000261	0.06038549	-0.00005199
6800201	42361.	-0.017959	0.014959	-0.000005	-0.00000261	0.06051545	-0.00005208
6800201	42362.	-0.017997	0.014991	-0.000005	-0.00000262	0.06064563	-0.00005217
6800201	42363.	-0.018036	0.015024	-0.000005	-0.00000263	0.06077602	-0.00005225
6800201	42364.	-0.018074	0.015055	-0.000005	-0.00000263	0.06090664	-0.00005235
6800201	42365.	-0.018113	0.015088	-0.000006	-0.00000264	0.06103749	-0.00005243
6800201	42366.	-0.018152	0.015121	-0.000006	-0.00000264	0.06116855	-0.00005252
6800201	42367.	-0.018189	0.015153	-0.000006	-0.00000265	0.06129984	-0.00005261
6800201	42368.	-0.018228	0.015186	-0.000006	-0.00000266	0.06143134	-0.00005269
6800201	42369.	-0.018267	0.015219	-0.000006	-0.00000266	0.06156305	-0.00005278
6800201	42370.	-0.018306	0.015252	-0.000006	-0.00000267	0.06169498	-0.00005287
6800201	42371.	-0.018344	0.015284	-0.000006	-0.00000268	0.06182715	-0.00005297
6800201	42372.	-0.018382	0.015316	-0.000005	-0.00000269	0.06195956	-0.00005307
6800201	42373.	-0.018421	0.015350	-0.000006	-0.00000269	0.06209222	-0.00005317
6800201	42374.	-0.018459	0.015383	-0.000005	-0.00000270	0.06222513	-0.00005327
6800201	42375.	-0.018498	0.015416	-0.000006	-0.00000270	0.06235830	-0.00005337

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42376.	-0.018537	0.015448	-0.000005	-0.00000272	0.06249173	-0.00005348
6800201	42377.	-0.018575	0.015482	-0.000006	-0.00000272	0.06262542	-0.00005358
6800201	42378.	-0.018614	0.015515	-0.000006	-0.00000274	0.06275934	-0.00005367
6800201	42379.	-0.018654	0.015548	-0.000006	-0.00000274	0.06289353	-0.00005378
6800201	42380.	-0.018693	0.015581	-0.000006	-0.00000275	0.06302794	-0.00005387
6800201	42381.	-0.018733	0.015615	-0.000006	-0.00000276	0.06316259	-0.00005395
6800201	42382.	-0.018772	0.015648	-0.000007	-0.00000277	0.06329746	-0.00005404
6800201	42383.	-0.018812	0.015680	-0.000007	-0.00000277	0.06343255	-0.00005413
6800201	42384.	-0.018850	0.015714	-0.000008	-0.00000278	0.06356784	-0.00005421
6800201	42385.	-0.018890	0.015748	-0.000007	-0.00000278	0.06370333	-0.00005429
6800201	42386.	-0.018928	0.015781	-0.000007	-0.00000279	0.06383902	-0.00005437
6800201	42387.	-0.018966	0.015815	-0.000008	-0.00000279	0.06397489	-0.00005445
6800201	42388.	-0.019004	0.015848	-0.000007	-0.00000280	0.06411095	-0.00005452
6800201	42389.	-0.019043	0.015882	-0.000007	-0.00000281	0.06424718	-0.00005458
6800201	42390.	-0.019081	0.015916	-0.000007	-0.00000282	0.06438359	-0.00005465
6800201	42391.	-0.019121	0.015949	-0.000007	-0.00000282	0.06452016	-0.00005473
6800201	42392.	-0.019159	0.015983	-0.000007	-0.00000282	0.06465692	-0.00005479
6800201	42393.	-0.019199	0.016017	-0.000007	-0.00000283	0.06479384	-0.00005486
6800201	42394.	-0.019239	0.016051	-0.000008	-0.00000283	-0.93506906	-0.00005493
6800201	42395.	-0.019279	0.016084	-0.000008	-0.00000284	0.06506822	-0.00005500
6800201	42396.	-0.019320	0.016118	-0.000008	-0.00000284	0.06520566	-0.00005507
6800201	42397.	-0.019361	0.016152	-0.000008	-0.00000285	0.06534327	-0.00005514
6800201	42398.	-0.019402	0.016186	-0.000008	-0.00000286	0.06548106	-0.00005520
6800201	42399.	-0.019443	0.016221	-0.000009	-0.00000286	0.06561903	-0.00005527
6800201	42400.	-0.019483	0.016254	-0.000008	-0.00000287	-0.93424283	-0.00005535
6800201	42401.	-0.019524	0.016288	-0.000008	-0.00000287	0.06589550	-0.00005543
6800201	42402.	-0.019564	0.016322	-0.000009	-0.00000288	0.06603401	-0.00005550
6800201	42403.	-0.019604	0.016357	-0.000009	-0.00000288	0.06617270	-0.00005557
6800201	42404.	-0.019645	0.016391	-0.000008	-0.00000289	0.06631157	-0.00005564
6800201	42405.	-0.019686	0.016425	-0.000008	-0.00000289	0.06645060	-0.00005570
6800201	42406.	-0.019726	0.016459	-0.000008	-0.00000290	-0.93341021	-0.00005577
6800201	42407.	-0.019767	0.016494	-0.000009	-0.00000291	0.06672913	-0.00005582
6800201	42408.	-0.019808	0.016527	-0.000009	-0.00000291	0.06686862	-0.00005588
6800201	42409.	-0.019849	0.016562	-0.000009	-0.00000291	0.06700825	-0.00005594
6800201	42410.	-0.019890	0.016596	-0.000009	-0.00000291	0.06714802	-0.00005599

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	42411.	-0.019933	0.016631	-0.000010	-0.00000292	0.06728793	-0.00005604
6800201	42412.	-0.019975	0.016665	-0.000010	-0.00000293	-0.93257203	-0.00005610
6800201	42413.	-0.020017	0.016700	-0.000010	-0.00000293	0.06756814	-0.00005614
6800201	42414.	-0.020060	0.016734	-0.000011	-0.00000293	0.06770843	-0.00005620
6800201	42415.	-0.020104	0.016768	-0.000010	-0.00000294	0.06784884	-0.00005624
6800201	42416.	-0.020147	0.016803	-0.000010	-0.00000294	0.06798938	-0.00005629
6800201	42417.	-0.020190	0.016837	-0.000010	-0.00000294	0.06813005	-0.00005634
6800201	42418.	-0.020234	0.016872	-0.000010	-0.00000294	-0.93172917	-0.00005639
6800201	42419.	-0.020277	0.016906	-0.000010	-0.00000294	0.06841174	-0.00005645
6800201	42420.	-0.020319	0.016941	-0.000010	-0.00000295	0.06855277	-0.00005649
6800201	42421.	-0.020362	0.016976	-0.000010	-0.00000295	0.06869391	-0.00005654
6800201	42422.	-0.020405	0.017011	-0.000010	-0.00000295	0.06883518	-0.00005659
6800201	42423.	-0.020447	0.017046	-0.000010	-0.00000295	0.06897655	-0.00005663
6800201	42424.	-0.020489	0.017079	-0.000011	-0.00000296	0.06911804	-0.00005667
6800201	42425.	-0.020533	0.017114	-0.000010	-0.00000297	0.06925965	-0.00005672
6800201	42426.	-0.020576	0.017149	-0.000011	-0.00000296	0.06940136	-0.00005676
6800201	42427.	-0.020620	0.017184	-0.000012	-0.00000297	0.06954319	-0.00005681
6800201	42428.	-0.020664	0.017219	-0.000011	-0.00000297	0.06968514	-0.00005686
6800201	42429.	-0.020708	0.017253	-0.000012	-0.00000297	0.06982720	-0.00005690
6800201	42430.	-0.020753	0.017288	-0.000011	-0.00000297	0.06996936	-0.00005694
6800201	42431.	-0.020798	0.017323	-0.000012	-0.00000297	0.07011164	-0.00005698
6800201	42432.	-0.020843	0.017358	-0.000012	-0.00000298	0.07025401	-0.00005703
6800201	42433.	-0.020888	0.017393	-0.000011	-0.00000297	0.07039649	-0.00005706
6800201	42434.	-0.020932	0.017428	-0.000011	-0.00000297	0.07053905	-0.00005710
6800201	42435.	-0.020978	0.017463	-0.000012	-0.00000298	0.07068172	-0.00005713
6800201	42436.	-0.021023	0.017497	-0.000011	-0.00000298	0.07082447	-0.00005717
6800201	42437.	-0.021066	0.017532	-0.000012	-0.00000298	0.07096732	-0.00005722
6800201	42438.	-0.021111	0.017567	-0.000012	-0.00000298	0.07111024	-0.00005725
6800201	42439.	-0.021155	0.017602	-0.000012	-0.00000298	0.07125327	-0.00005728
6800201	42440.	-0.021199	0.017638	-0.000012	-0.00000299	0.07139638	-0.00005731
6800201	42441.	-0.021243	0.017672	-0.000013	-0.00000298	0.07153958	-0.00005736
6800201	42442.	-0.021287	0.017707	-0.000013	-0.00000299	0.07168286	-0.00005738
6800201	42443.	-0.021331	0.017742	-0.000013	-0.00000298	0.07182623	-0.00005742
6800201	42444.	-0.021377	0.017777	-0.000013	-0.00000298	0.07196969	-0.00005746
6800201	42445.	-0.021421	0.017812	-0.000014	-0.00000299	0.07211324	-0.00005749

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42446.	-0.021466	0.017847	-0.000013	-0.00000298	0.07225687	-0.00005753
6800201	42447.	-0.021511	0.017882	-0.000013	-0.00000298	0.07240060	-0.00005756
6800201	42448.	-0.021556	0.017917	-0.000013	-0.00000298	0.07254442	-0.00005759
6800201	42449.	-0.021601	0.017953	-0.000014	-0.00000298	0.07268831	-0.00005763
6800201	42450.	-0.021646	0.017988	-0.000013	-0.00000298	0.07283230	-0.00005766
6800201	42451.	-0.021691	0.018023	-0.000013	-0.00000299	0.07297638	-0.00005771
6800201	42452.	-0.021736	0.018058	-0.000013	-0.00000298	0.07312054	-0.00005774
6800201	42453.	-0.021780	0.018093	-0.000014	-0.00000298	0.07326480	-0.00005778
6800201	42454.	-0.021825	0.018128	-0.000014	-0.00000298	0.07340914	-0.00005781
6800201	42455.	-0.021870	0.018163	-0.000014	-0.00000298	0.07355358	-0.00005785
6800201	42456.	-0.021914	0.018198	-0.000014	-0.00000299	0.07369811	-0.00005789
6800201	42457.	-0.021958	0.018233	-0.000015	-0.00000298	0.07384272	-0.00005792
6800201	42458.	-0.022003	0.018269	-0.000014	-0.00000298	0.07398744	-0.00005796
6800201	42459.	-0.022047	0.018304	-0.000015	-0.00000299	-0.92586776	-0.00005800
6800201	42460.	-0.022090	0.018338	-0.000015	-0.00000298	0.07427713	-0.00005803
6800201	42461.	-0.022134	0.018374	-0.000015	-0.00000298	0.07442210	-0.00005807
6800201	42462.	-0.022177	0.018410	-0.000015	-0.00000298	0.07456716	-0.00005810
6800201	42463.	-0.022221	0.018445	-0.000014	-0.00000298	0.07471231	-0.00005813
6800201	42464.	-0.022264	0.018480	-0.000015	-0.00000298	0.07485755	-0.00005817
6800201	42465.	-0.022309	0.018515	-0.000014	-0.00000298	-0.92499714	-0.00005820
6800201	42466.	-0.022352	0.018550	-0.000015	-0.00000298	0.07514827	-0.00005823
6800201	42467.	-0.022397	0.018586	-0.000014	-0.00000298	0.07529376	-0.00005827
6800201	42468.	-0.022441	0.018621	-0.000015	-0.00000298	0.07543934	-0.00005831
6800201	42469.	-0.022486	0.018657	-0.000016	-0.00000298	0.07558501	-0.00005834
6800201	42470.	-0.022531	0.018691	-0.000016	-0.00000298	0.07573077	-0.00005838
6800201	42471.	-0.022576	0.018727	-0.000015	-0.00000298	-0.92412338	-0.00005842
6800201	42472.	-0.022620	0.018762	-0.000016	-0.00000298	0.07602255	-0.00005845
6800201	42473.	-0.022664	0.018798	-0.000017	-0.00000298	0.07616857	-0.00005849
6800201	42474.	-0.022707	0.018833	-0.000016	-0.00000299	0.07631469	-0.00005852
6800201	42475.	-0.022750	0.018868	-0.000017	-0.00000298	0.07646090	-0.00005856
6800201	42476.	-0.022792	0.018903	-0.000017	-0.00000298	0.07660720	-0.00005860
6800201	42477.	-0.022836	0.018939	-0.000016	-0.00000298	-0.92324641	-0.00005864
6800201	42478.	-0.022878	0.018975	-0.000016	-0.00000299	0.07690009	-0.00005868
6800201	42479.	-0.022921	0.019010	-0.000016	-0.00000298	0.07704668	-0.00005872
6800201	42480.	-0.022964	0.019045	-0.000016	-0.00000299	0.07719337	-0.00005875

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	42481.	-0.023007	0.019081	-0.000016	-0.00000299	0.07734015	-0.00005880
6800201	42482.	-0.023051	0.019117	-0.000017	-0.00000299	0.07748703	-0.00005883
6800201	42483.	-0.023094	0.019152	-0.000016	-0.00000299	-0.92236596	-0.00005888
6800201	42484.	-0.023138	0.019187	-0.000016	-0.00000299	0.07778115	-0.00005893
6800201	42485.	-0.023182	0.019224	-0.000016	-0.00000299	0.07792837	-0.00005897
6800201	42486.	-0.023226	0.019258	-0.000016	-0.00000299	0.07807570	-0.00005901
6800201	42487.	-0.023270	0.019295	-0.000017	-0.00000299	0.07822315	-0.00005906
6800201	42488.	-0.023315	0.019330	-0.000017	-0.00000299	0.07837069	-0.00005910
6800201	42489.	-0.023360	0.019365	-0.000017	-0.00000299	0.07851836	-0.00005915
6800201	42490.	-0.023403	0.019401	-0.000017	-0.00000300	0.07866614	-0.00005919
6800201	42491.	-0.023447	0.019437	-0.000018	-0.00000299	0.07881402	-0.00005924
6800201	42492.	-0.023490	0.019473	-0.000018	-0.00000300	0.07896201	-0.00005928
6800201	42493.	-0.023532	0.019508	-0.000017	-0.00000300	0.07911012	-0.00005933
6800201	42494.	-0.023574	0.019545	-0.000017	-0.00000301	0.07925833	-0.00005937
6800201	42495.	-0.023617	0.019580	-0.000017	-0.00000300	0.07940665	-0.00005941
6800201	42496.	-0.023658	0.019616	-0.000017	-0.00000301	0.07955508	-0.00005946
6800201	42497.	-0.023700	0.019652	-0.000016	-0.00000301	0.07970362	-0.00005950
6800201	42498.	-0.023742	0.019688	-0.000017	-0.00000301	0.07985228	-0.00005954
6800201	42499.	-0.023784	0.019724	-0.000017	-0.00000301	0.08000106	-0.00005960
6800201	42500.	-0.023829	0.019760	-0.000017	-0.00000301	0.08014995	-0.00005965
6800201	42501.	-0.023873	0.019796	-0.000018	-0.00000302	0.08029898	-0.00005969
6800201	42502.	-0.023917	0.019831	-0.000017	-0.00000302	0.08044812	-0.00005974
6800201	42503.	-0.023962	0.019868	-0.000018	-0.00000302	0.08059737	-0.00005979
6800201	42504.	-0.024007	0.019903	-0.000018	-0.00000302	0.08074675	-0.00005983
6800201	42505.	-0.024052	0.019940	-0.000018	-0.00000303	0.08089624	-0.00005988
6800201	42506.	-0.024096	0.019975	-0.000018	-0.00000303	0.08104586	-0.00005993
6800201	42507.	-0.024140	0.020012	-0.000018	-0.00000304	0.08119558	-0.00005998
6800201	42508.	-0.024184	0.020048	-0.000017	-0.00000303	0.08134542	-0.00006002
6800201	42509.	-0.024226	0.020084	-0.000017	-0.00000304	0.08149539	-0.00006008
6800201	42510.	-0.024269	0.020121	-0.000017	-0.00000304	0.08164548	-0.00006012
6800201	42511.	-0.024311	0.020156	-0.000017	-0.00000304	0.08179570	-0.00006018
6800201	42512.	-0.024354	0.020193	-0.000017	-0.00000305	0.08194604	-0.00006023
6800201	42513.	-0.024396	0.020229	-0.000017	-0.00000305	0.08209654	-0.00006029
6800201	42514.	-0.024438	0.020266	-0.000017	-0.00000305	0.08224715	-0.00006034
6800201	42515.	-0.024481	0.020302	-0.000017	-0.00000306	0.08239790	-0.00006039

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42516.	-0.024524	0.020338	-0.000017	-0.00000306	0.08254877	-0.00006044
6800201	42517.	-0.024568	0.020374	-0.000018	-0.00000306	0.08269978	-0.00006049
6800201	42518.	-0.024612	0.020411	-0.000017	-0.00000306	0.08285091	-0.00006053
6800201	42519.	-0.024658	0.020447	-0.000018	-0.00000307	0.08300215	-0.00006058
6800201	42520.	-0.024703	0.020484	-0.000017	-0.00000306	0.08315352	-0.00006063
6800201	42521.	-0.024750	0.020520	-0.000017	-0.00000306	0.08330500	-0.00006067
6800201	42522.	-0.024796	0.020557	-0.000018	-0.00000307	0.08345660	-0.00006072
6800201	42523.	-0.024843	0.020594	-0.000018	-0.00000307	0.08360831	-0.00006077
6800201	42524.	-0.024888	0.020630	-0.000018	-0.00000308	-0.91623986	-0.00006081
6800201	42525.	-0.024933	0.020668	-0.000017	-0.00000308	0.08391208	-0.00006086
6800201	42526.	-0.024978	0.020704	-0.000017	-0.00000309	0.08406413	-0.00006091
6800201	42527.	-0.025021	0.020740	-0.000017	-0.00000309	0.08421630	-0.00006096
6800201	42528.	-0.025064	0.020777	-0.000016	-0.00000309	0.08436858	-0.00006100
6800201	42529.	-0.025107	0.020814	-0.000017	-0.00000309	0.08452097	-0.00006104
6800201	42530.	-0.025152	0.020851	-0.000017	-0.00000310	-0.91532652	-0.00006108
6800201	42531.	-0.025196	0.020888	-0.000017	-0.00000311	0.08482609	-0.00006114
6800201	42532.	-0.025241	0.020924	-0.000017	-0.00000311	0.08497882	-0.00006118
6800201	42533.	-0.025286	0.020961	-0.000016	-0.00000311	0.08513166	-0.00006122
6800201	42534.	-0.025332	0.020999	-0.000017	-0.00000311	0.08528460	-0.00006126
6800201	42535.	-0.025379	0.021035	-0.000017	-0.00000311	0.08543766	-0.00006131
6800201	42536.	-0.025428	0.021072	-0.000017	-0.00000311	-0.91440917	-0.00006135
6800201	42537.	-0.025475	0.021109	-0.000017	-0.00000312	0.08574411	-0.00006140
6800201	42538.	-0.025523	0.021147	-0.000017	-0.00000312	0.08589751	-0.00006144
6800201	42539.	-0.025571	0.021184	-0.000017	-0.00000312	0.08605103	-0.00006148
6800201	42540.	-0.025619	0.021221	-0.000016	-0.00000312	0.08620464	-0.00006152
6800201	42541.	-0.025667	0.021258	-0.000016	-0.00000313	0.08635837	-0.00006157
6800201	42542.	-0.025714	0.021295	-0.000016	-0.00000313	-0.91348780	-0.00006161
6800201	42543.	-0.025761	0.021333	-0.000016	-0.00000314	0.08666612	-0.00006165
6800201	42544.	-0.025808	0.021370	-0.000016	-0.00000313	0.08682014	-0.00006168
6800201	42545.	-0.025854	0.021406	-0.000015	-0.00000314	0.08697425	-0.00006172
6800201	42546.	-0.025900	0.021444	-0.000016	-0.00000314	0.08712846	-0.00006176
6800201	42547.	-0.025946	0.021481	-0.000015	-0.00000315	0.08728274	-0.00006179
6800201	42548.	-0.025993	0.021519	-0.000016	-0.00000315	-0.91256288	-0.00006183
6800201	42549.	-0.026039	0.021556	-0.000016	-0.00000314	0.08759160	-0.00006187
6800201	42550.	-0.026087	0.021594	-0.000016	-0.00000314	0.08774616	-0.00006190

EPOCH	GEOS-B		DRAG PERTURBATIONS				A
	PERIGEE		NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	
6800201	42551.	-0.026136	0.021631	-0.000016	-0.00000315	0.08790081	-0.00006194
6800201	42552.	-0.026186	0.021668	-0.000016	-0.00000315	0.08805555	-0.00006197
6800201	42553.	-0.026235	0.021706	-0.000016	-0.00000315	0.08821038	-0.00006200
6800201	42554.	-0.026286	0.021744	-0.000016	-0.00000316	-0.91163471	-0.00006204
6800201	42555.	-0.026336	0.021781	-0.000015	-0.00000315	0.08852029	-0.00006208
6800201	42556.	-0.026388	0.021818	-0.000016	-0.00000316	0.08867536	-0.00006211
6800201	42557.	-0.026437	0.021856	-0.000015	-0.00000316	0.08883053	-0.00006214
6800201	42558.	-0.026486	0.021893	-0.000014	-0.00000316	0.08898576	-0.00006217
6800201	42559.	-0.026536	0.021931	-0.000014	-0.00000316	0.08914107	-0.00006220
6800201	42560.	-0.026585	0.021969	-0.000015	-0.00000316	0.08929646	-0.00006223
6800201	42561.	-0.026632	0.022007	-0.000014	-0.00000316	0.08945194	-0.00006226
6800201	42562.	-0.026680	0.022044	-0.000014	-0.00000317	0.08960747	-0.00006230
6800201	42563.	-0.026729	0.022082	-0.000015	-0.00000317	0.08976309	-0.00006232
6800201	42564.	-0.026778	0.022120	-0.000015	-0.00000317	0.08991879	-0.00006235
6800201	42565.	-0.026826	0.022158	-0.000016	-0.00000317	0.09007455	-0.00006238
6800201	42566.	-0.026874	0.022196	-0.000015	-0.00000317	0.09023039	-0.00006241
6800201	42567.	-0.026923	0.022233	-0.000015	-0.00000317	0.09038632	-0.00006244
6800201	42568.	-0.026974	0.022271	-0.000015	-0.00000317	0.09054231	-0.00006247
6800201	42569.	-0.027023	0.022309	-0.000015	-0.00000317	0.09069838	-0.00006250
6800201	42570.	-0.027073	0.022347	-0.000015	-0.00000316	0.09085451	-0.00006253
6800201	42571.	-0.027124	0.022385	-0.000015	-0.00000317	0.09101072	-0.00006256
6800201	42572.	-0.027175	0.022423	-0.000014	-0.00000316	0.09116699	-0.00006258
6800201	42573.	-0.027226	0.022461	-0.000014	-0.00000317	0.09132333	-0.00006261
6800201	42574.	-0.027277	0.022498	-0.000014	-0.00000316	0.09147974	-0.00006263
6800201	42575.	-0.027328	0.022537	-0.000014	-0.00000317	0.09163621	-0.00006266
6800201	42576.	-0.027377	0.022574	-0.000013	-0.00000317	0.09179274	-0.00006268
6800201	42577.	-0.027426	0.022613	-0.000014	-0.00000317	0.09194934	-0.00006272
6800201	42578.	-0.027476	0.022651	-0.000014	-0.00000317	0.09210601	-0.00006274
6800201	42579.	-0.027524	0.022689	-0.000014	-0.00000316	0.09226274	-0.00006277
6800201	42580.	-0.027572	0.022727	-0.000015	-0.00000317	0.09241954	-0.00006279
6800201	42581.	-0.027620	0.022764	-0.000014	-0.00000316	0.09257640	-0.00006282
6800201	42582.	-0.027668	0.022803	-0.000014	-0.00000317	0.09273333	-0.00006284
6800201	42583.	-0.027717	0.022841	-0.000014	-0.00000316	0.09289032	-0.00006287
6800201	42584.	-0.027765	0.022879	-0.000014	-0.00000316	0.09304736	-0.00006290
6800201	42585.	-0.027814	0.022918	-0.000014	-0.00000316	0.09320448	-0.00006292

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42586.	-0.027864	0.022956	-0.000014	-0.00000316	0.09336166	-0.00006294
6800201	42587.	-0.027912	0.022994	-0.000013	-0.00000316	0.09351890	-0.00006297
6800201	42588.	-0.027961	0.023032	-0.000013	-0.00000316	0.09367619	-0.00006299
6800201	42589.	-0.028010	0.023070	-0.000013	-0.00000315	-0.90616645	-0.00006302
6800201	42590.	-0.028058	0.023108	-0.000012	-0.00000316	0.09399097	-0.00006304
6800201	42591.	-0.028107	0.023147	-0.000012	-0.00000315	0.09414844	-0.00006307
6800201	42592.	-0.028156	0.023185	-0.000012	-0.00000315	0.09430598	-0.00006309
6800201	42593.	-0.028203	0.023224	-0.000013	-0.00000315	0.09446359	-0.00006312
6800201	42594.	-0.028251	0.023263	-0.000013	-0.00000315	0.09462126	-0.00006314
6800201	42595.	-0.028298	0.023301	-0.000014	-0.00000315	-0.90522101	-0.00006317
6800201	42596.	-0.028344	0.023339	-0.000014	-0.00000315	0.09493680	-0.00006320
6800201	42597.	-0.028392	0.023378	-0.000013	-0.00000315	0.09509465	-0.00006322
6800201	42598.	-0.028438	0.023416	-0.000013	-0.00000315	0.09525257	-0.00006324
6800201	42599.	-0.028484	0.023455	-0.000013	-0.00000315	0.09541055	-0.00006326
6800201	42600.	-0.028530	0.023493	-0.000013	-0.00000315	0.09556859	-0.00006329
6800201	42601.	-0.028575	0.023532	-0.000013	-0.00000315	-0.90427331	-0.00006332
6800201	42602.	-0.028621	0.023571	-0.000012	-0.00000315	0.09588485	-0.00006334
6800201	42603.	-0.028667	0.023609	-0.000012	-0.00000314	0.09604308	-0.00006337
6800201	42604.	-0.028712	0.023648	-0.000012	-0.00000314	0.09620136	-0.00006339
6800201	42605.	-0.028757	0.023687	-0.000011	-0.00000314	0.09635972	-0.00006342
6800201	42606.	-0.028803	0.023725	-0.000011	-0.00000313	0.09651813	-0.00006344
6800201	42607.	-0.028848	0.023763	-0.000012	-0.00000313	-0.90332338	-0.00006347
6800201	42608.	-0.028894	0.023802	-0.000012	-0.00000313	0.09683515	-0.00006349
6800201	42609.	-0.028941	0.023841	-0.000012	-0.00000313	0.09699377	-0.00006353
6800201	42610.	-0.028987	0.023880	-0.000012	-0.00000313	0.09715245	-0.00006355
6800201	42611.	-0.029033	0.023919	-0.000012	-0.00000313	0.09731121	-0.00006357
6800201	42612.	-0.029079	0.023957	-0.000013	-0.00000314	0.09747003	-0.00006360
6800201	42613.	-0.029124	0.023996	-0.000012	-0.00000314	-0.90237109	-0.00006363
6800201	42614.	-0.029169	0.024035	-0.000012	-0.00000313	0.09778785	-0.00006366
6800201	42615.	-0.029213	0.024074	-0.000012	-0.00000314	0.09794687	-0.00006368
6800201	42616.	-0.029258	0.024113	-0.000012	-0.00000314	0.09810594	-0.00006371
6800201	42617.	-0.029302	0.024151	-0.000011	-0.00000314	0.09826509	-0.00006374
6800201	42618.	-0.029346	0.024190	-0.000011	-0.00000314	0.09842429	-0.00006377
6800201	42619.	-0.029390	0.024230	-0.000011	-0.00000314	-0.90141643	-0.00006379
6800201	42620.	-0.029434	0.024268	-0.000011	-0.00000314	0.09874291	-0.00006381

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42621.	-0.029478	0.024308	-0.000010	-0.00000314	0.09890233	-0.00006385
6800201	42622.	-0.029523	0.024347	-0.000010	-0.00000314	0.09906181	-0.00006387
6800201	42623.	-0.029569	0.024386	-0.000011	-0.00000314	0.09922136	-0.00006390
6800201	42624.	-0.029615	0.024425	-0.000010	-0.00000314	0.09938098	-0.00006393
6800201	42625.	-0.029661	0.024464	-0.000010	-0.00000314	0.09954067	-0.00006395
6800201	42626.	-0.029708	0.024503	-0.000010	-0.00000315	0.09970042	-0.00006398
6800201	42627.	-0.029755	0.024543	-0.000011	-0.00000314	0.09986025	-0.00006401
6800201	42628.	-0.029801	0.024582	-0.000011	-0.00000315	0.10002015	-0.00006404
6800201	42629.	-0.029849	0.024622	-0.000011	-0.00000315	0.10018013	-0.00006408
6800201	42630.	-0.029895	0.024661	-0.000011	-0.00000315	0.10034019	-0.00006411
6800201	42631.	-0.029941	0.024700	-0.000010	-0.00000315	0.10050034	-0.00006414
6800201	42632.	-0.029988	0.024739	-0.000009	-0.00000316	0.10066057	-0.00006418
6800201	42633.	-0.030033	0.024779	-0.000010	-0.00000316	0.10082091	-0.00006422
6800201	42634.	-0.030078	0.024819	-0.000009	-0.00000317	0.10098135	-0.00006426
6800201	42635.	-0.030123	0.024858	-0.000009	-0.00000317	0.10114188	-0.00006430
6800201	42636.	-0.030170	0.024898	-0.000009	-0.00000317	0.10130252	-0.00006434
6800201	42637.	-0.030216	0.024937	-0.000009	-0.00000317	0.10146324	-0.00006438
6800201	42638.	-0.030263	0.024976	-0.000009	-0.00000317	0.10162407	-0.00006441
6800201	42639.	-0.030311	0.025016	-0.000009	-0.00000318	0.10178500	-0.00006445
6800201	42640.	-0.030360	0.025056	-0.000010	-0.00000317	0.10194601	-0.00006449
6800201	42641.	-0.030409	0.025096	-0.000009	-0.00000318	0.10210710	-0.00006452
6800201	42642.	-0.030458	0.025135	-0.000009	-0.00000318	0.10226829	-0.00006455
6800201	42643.	-0.030507	0.025175	-0.000009	-0.00000319	0.10242955	-0.00006459
6800201	42644.	-0.030557	0.025214	-0.000009	-0.00000319	0.10259089	-0.00006462
6800201	42645.	-0.030608	0.025255	-0.000009	-0.00000319	0.10275230	-0.00006464
6800201	42646.	-0.030658	0.025294	-0.000008	-0.00000319	0.10291380	-0.00006468
6800201	42647.	-0.030707	0.025334	-0.000008	-0.00000320	0.10307538	-0.00006471
6800201	42648.	-0.030757	0.025374	-0.000008	-0.00000320	0.10323704	-0.00006474
6800201	42649.	-0.030808	0.025414	-0.000008	-0.00000320	0.10339877	-0.00006477
6800201	42650.	-0.030857	0.025454	-0.000007	-0.00000320	0.10356059	-0.00006481
6800201	42651.	-0.030907	0.025494	-0.000007	-0.00000320	0.10372250	-0.00006484
6800201	42652.	-0.030957	0.025534	-0.000007	-0.00000320	0.10388449	-0.00006488
6800201	42653.	-0.031006	0.025574	-0.000007	-0.00000321	0.10404657	-0.00006491
6800201	42654.	-0.031055	0.025614	-0.000007	-0.00000321	-0.89579127	-0.00006495
6800201	42655.	-0.031105	0.025655	-0.000007	-0.00000321	0.10437099	-0.00006499

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42656.	-0.031156	0.025695	-0.000007	-0.00000321	0.10453334	-0.00006502
6800201	42657.	-0.031206	0.025735	-0.000007	-0.00000321	0.10469579	-0.00006506
6800201	42658.	-0.031258	0.025776	-0.000008	-0.00000322	0.10485833	-0.00006510
6800201	42659.	-0.031310	0.025815	-0.000007	-0.00000321	0.10502098	-0.00006513
6800201	42660.	-0.031363	0.025856	-0.000008	-0.00000322	-0.89481628	-0.00006517
6800201	42661.	-0.031416	0.025896	-0.000007	-0.00000322	0.10534656	-0.00006522
6800201	42662.	-0.031470	0.025937	-0.000007	-0.00000322	0.10550950	-0.00006526
6800201	42663.	-0.031522	0.025977	-0.000006	-0.00000322	0.10567256	-0.00006530
6800201	42664.	-0.031574	0.026018	-0.000005	-0.00000322	0.10583571	-0.00006534
6800201	42665.	-0.031626	0.026058	-0.000005	-0.00000322	0.10599897	-0.00006538
6800201	42666.	-0.031677	0.026099	-0.000005	-0.00000322	-0.89383767	-0.00006543
6800201	42667.	-0.031728	0.026139	-0.000005	-0.00000323	0.10632580	-0.00006547
6800201	42668.	-0.031779	0.026180	-0.000006	-0.00000322	0.10648937	-0.00006551
6800201	42669.	-0.031829	0.026221	-0.000006	-0.00000323	0.10665305	-0.00006555
6800201	42670.	-0.031879	0.026262	-0.000005	-0.00000323	0.10681683	-0.00006560
6800201	42671.	-0.031930	0.026302	-0.000006	-0.00000323	0.10698071	-0.00006564
6800201	42672.	-0.031979	0.026343	-0.000006	-0.00000323	-0.89285531	-0.00006567
6800201	42673.	-0.032031	0.026384	-0.000006	-0.00000323	0.10730877	-0.00006572
6800201	42674.	-0.032081	0.026424	-0.000006	-0.00000323	0.10747295	-0.00006576
6800201	42675.	-0.032132	0.026466	-0.000006	-0.00000323	0.10763723	-0.00006580
6800201	42676.	-0.032183	0.026507	-0.000006	-0.00000323	0.10780162	-0.00006584
6800201	42677.	-0.032233	0.026547	-0.000005	-0.00000323	0.10796613	-0.00006588
6800201	42678.	-0.032283	0.026589	-0.000005	-0.00000323	-0.89186927	-0.00006592
6800201	42679.	-0.032333	0.026629	-0.000005	-0.00000323	0.10829543	-0.00006597
6800201	42680.	-0.032383	0.026671	-0.000005	-0.00000323	0.10846025	-0.00006601
6800201	42681.	-0.032433	0.026712	-0.000004	-0.00000322	0.10862517	-0.00006605
6800201	42682.	-0.032482	0.026753	-0.000003	-0.00000323	0.10879021	-0.00006610
6800201	42683.	-0.032531	0.026794	-0.000004	-0.00000323	0.10895535	-0.00006615
6800201	42684.	-0.032580	0.026835	-0.000004	-0.00000323	-0.89087940	-0.00006619
6800201	42685.	-0.032629	0.026877	-0.000004	-0.00000323	0.10928598	-0.00006623
6800201	42686.	-0.032677	0.026918	-0.000004	-0.00000323	0.10945147	-0.00006629
6800201	42687.	-0.032726	0.026960	-0.000005	-0.00000324	0.10961707	-0.00006633
6800201	42688.	-0.032773	0.027001	-0.000004	-0.00000323	0.10978278	-0.00006638
6800201	42689.	-0.032821	0.027042	-0.000005	-0.00000323	0.10994861	-0.00006642
6800201	42690.	-0.032868	0.027084	-0.000005	-0.00000323	-0.88988544	-0.00006647

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42691.	-0.032914	0.027126	-0.000004	-0.00000324	0.11028064	-0.00006652
6800201	42692.	-0.032961	0.027167	-0.000004	-0.00000324	0.11044684	-0.00006657
6800201	42693.	-0.033007	0.027209	-0.000004	-0.00000324	0.11061315	-0.00006662
6800201	42694.	-0.033054	0.027250	-0.000003	-0.00000324	0.11077960	-0.00006667
6800201	42695.	-0.033100	0.027292	-0.000003	-0.00000323	0.11094618	-0.00006673
6800201	42696.	-0.033147	0.027334	-0.000003	-0.00000324	0.11111289	-0.00006678
6800201	42697.	-0.033195	0.027375	-0.000003	-0.00000323	0.11127973	-0.00006683
6800201	42698.	-0.033242	0.027417	-0.000003	-0.00000323	0.11144669	-0.00006688
6800201	42699.	-0.033289	0.027459	-0.000004	-0.00000324	0.11161377	-0.00006693
6800201	42700.	-0.033336	0.027501	-0.000004	-0.00000324	0.11178099	-0.00006699
6800201	42701.	-0.033384	0.027543	-0.000003	-0.00000324	0.11194834	-0.00006704
6800201	42702.	-0.033431	0.027584	-0.000004	-0.00000325	0.11211583	-0.00006709
6800201	42703.	-0.033479	0.027626	-0.000004	-0.00000324	0.11228345	-0.00006715
6800201	42704.	-0.033525	0.027668	-0.000004	-0.00000324	0.11245120	-0.00006720
6800201	42705.	-0.033571	0.027710	-0.000004	-0.00000325	0.11261908	-0.00006725
6800201	42706.	-0.033617	0.027753	-0.000004	-0.00000325	0.11278710	-0.00006731
6800201	42707.	-0.033664	0.027794	-0.000004	-0.00000326	0.11295526	-0.00006736
6800201	42708.	-0.033708	0.027837	-0.000004	-0.00000325	0.11312354	-0.00006742
6800201	42709.	-0.033753	0.027879	-0.000003	-0.00000326	0.11329197	-0.00006747
6800201	42710.	-0.033799	0.027921	-0.000003	-0.00000326	0.11346052	-0.00006752
6800201	42711.	-0.033843	0.027964	-0.000003	-0.00000327	0.11362921	-0.00006757
6800201	42712.	-0.033889	0.028005	-0.000003	-0.00000326	0.11379802	-0.00006762
6800201	42713.	-0.033936	0.028048	-0.000003	-0.00000327	0.11396698	-0.00006768
6800201	42714.	-0.033983	0.028090	-0.000003	-0.00000327	0.11413608	-0.00006773
6800201	42715.	-0.034030	0.028133	-0.000003	-0.00000327	0.11430531	-0.00006779
6800201	42716.	-0.034079	0.028175	-0.000003	-0.00000327	0.11447468	-0.00006785
6800201	42717.	-0.034128	0.028217	-0.000004	-0.00000328	0.11464420	-0.00006790
6800201	42718.	-0.034177	0.028260	-0.000004	-0.00000328	0.11481385	-0.00006795
6800201	42719.	-0.034226	0.028302	-0.000004	-0.00000328	-0.88501636	-0.00006802
6800201	42720.	-0.034274	0.028345	-0.000004	-0.00000329	0.11515358	-0.00006808
6800201	42721.	-0.034322	0.028388	-0.000004	-0.00000330	0.11532369	-0.00006814
6800201	42722.	-0.034370	0.028430	-0.000004	-0.00000331	0.11549394	-0.00006820
6800201	42723.	-0.034417	0.028473	-0.000004	-0.00000331	0.11566434	-0.00006827
6800201	42724.	-0.034464	0.028516	-0.000003	-0.00000331	0.11583490	-0.00006833
6800201	42725.	-0.034511	0.028559	-0.000003	-0.00000332	-0.88399439	-0.00006839

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42726.	-0.034558	0.028601	-0.000002	-0.00000332	0.11617649	-0.00006845
6800201	42727.	-0.034606	0.028644	-0.000003	-0.00000332	0.11634753	-0.00006852
6800201	42728.	-0.034653	0.028687	-0.000003	-0.00000332	0.11651872	-0.00006858
6800201	42729.	-0.034703	0.028730	-0.000003	-0.00000333	0.11669008	-0.00006864
6800201	42730.	-0.034752	0.028773	-0.000003	-0.00000333	0.11686160	-0.00006870
6800201	42731.	-0.034801	0.028816	-0.000003	-0.00000334	-0.88296672	-0.00006877
6800201	42732.	-0.034853	0.028859	-0.000004	-0.00000334	0.11720511	-0.00006884
6800201	42733.	-0.034904	0.028902	-0.000004	-0.00000335	0.11737711	-0.00006890
6800201	42734.	-0.034956	0.028945	-0.000004	-0.00000335	0.11754927	-0.00006897
6800201	42735.	-0.035009	0.028989	-0.000004	-0.00000335	0.11772163	-0.00006903
6800201	42736.	-0.035061	0.029032	-0.000004	-0.00000336	0.11789414	-0.00006911
6800201	42737.	-0.035114	0.029075	-0.000004	-0.00000337	-0.88193316	-0.00006918
6800201	42738.	-0.035167	0.029119	-0.000003	-0.00000337	0.11823973	-0.00006926
6800201	42739.	-0.035219	0.029162	-0.000004	-0.00000338	0.11841280	-0.00006933
6800201	42740.	-0.035271	0.029205	-0.000003	-0.00000339	0.11858605	-0.00006940
6800201	42741.	-0.035321	0.029249	-0.000004	-0.00000340	0.11875946	-0.00006947
6800201	42742.	-0.035371	0.029291	-0.000003	-0.00000340	0.11893303	-0.00006953
6800201	42743.	-0.035420	0.029336	-0.000003	-0.00000340	-0.88089324	-0.00006960
6800201	42744.	-0.035470	0.029378	-0.000003	-0.00000341	0.11928064	-0.00006965
6800201	42745.	-0.035521	0.029422	-0.000004	-0.00000341	0.11945467	-0.00006971
6800201	42746.	-0.035572	0.029466	-0.000004	-0.00000341	0.11962887	-0.00006978
6800201	42747.	-0.035625	0.029509	-0.000005	-0.00000341	0.11980323	-0.00006984
6800201	42748.	-0.035679	0.029553	-0.000004	-0.00000343	0.11997776	-0.00006991
6800201	42749.	-0.035733	0.029597	-0.000005	-0.00000343	-0.87984755	-0.00006998
6800201	42750.	-0.035789	0.029640	-0.000005	-0.00000343	0.12032731	-0.00007003
6800201	42751.	-0.035845	0.029684	-0.000005	-0.00000343	0.12050232	-0.00007010
6800201	42752.	-0.035901	0.029729	-0.000005	-0.00000344	0.12067749	-0.00007016
6800201	42753.	-0.035956	0.029772	-0.000004	-0.00000344	0.12085282	-0.00007023
6800201	42754.	-0.036010	0.029816	-0.000004	-0.00000345	0.12102831	-0.00007029
6800201	42755.	-0.036064	0.029860	-0.000004	-0.00000345	-0.87879606	-0.00007035
6800201	42756.	-0.036118	0.029904	-0.000004	-0.00000346	0.12137974	-0.00007041
6800201	42757.	-0.036171	0.029948	-0.000004	-0.00000346	0.12155569	-0.00007048
6800201	42758.	-0.036223	0.029992	-0.000003	-0.00000348	0.12173179	-0.00007054
6800201	42759.	-0.036275	0.030036	-0.000004	-0.00000347	0.12190804	-0.00007060
6800201	42760.	-0.036327	0.030080	-0.000004	-0.00000348	0.12208445	-0.00007066

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42761.	-0.036379	0.030124	-0.000004	-0.00000349	-0.87773900	-0.00007072
6800201	42762.	-0.036432	0.030168	-0.000005	-0.00000349	0.12243771	-0.00007078
6800201	42763.	-0.036485	0.030212	-0.000004	-0.00000349	0.12261457	-0.00007084
6800201	42764.	-0.036538	0.030256	-0.000005	-0.00000349	0.12279158	-0.00007090
6800201	42765.	-0.036592	0.030300	-0.000006	-0.00000350	0.12296873	-0.00007096
6800201	42766.	-0.036647	0.030345	-0.000005	-0.00000350	0.12314604	-0.00007101
6800201	42767.	-0.036703	0.030390	-0.000005	-0.00000350	0.12332348	-0.00007108
6800201	42768.	-0.036761	0.030434	-0.000005	-0.00000351	0.12350107	-0.00007113
6800201	42769.	-0.036817	0.030478	-0.000005	-0.00000351	0.12367881	-0.00007119
6800201	42770.	-0.036875	0.030523	-0.000004	-0.00000351	0.12385669	-0.00007124
6800201	42771.	-0.036931	0.030567	-0.000004	-0.00000352	0.12403469	-0.00007130
6800201	42772.	-0.036987	0.030612	-0.000004	-0.00000352	0.12421284	-0.00007136
6800201	42773.	-0.037041	0.030656	-0.000004	-0.00000353	0.12439114	-0.00007141
6800201	42774.	-0.037094	0.030701	-0.000004	-0.00000353	0.12456958	-0.00007148
6800201	42775.	-0.037147	0.030745	-0.000004	-0.00000354	0.12474816	-0.00007154
6800201	42776.	-0.037200	0.030790	-0.000004	-0.00000354	0.12492689	-0.00007159
6800201	42777.	-0.037251	0.030834	-0.000005	-0.00000354	0.12510577	-0.00007165
6800201	42778.	-0.037304	0.030879	-0.000005	-0.00000355	0.12528478	-0.00007170
6800201	42779.	-0.037357	0.030924	-0.000005	-0.00000355	0.12546394	-0.00007177
6800201	42780.	-0.037410	0.030969	-0.000006	-0.00000356	0.12564324	-0.00007181
6800201	42781.	-0.037464	0.031014	-0.000006	-0.00000356	0.12582267	-0.00007187
6800201	42782.	-0.037520	0.031058	-0.000006	-0.00000355	0.12600226	-0.00007193
6800201	42783.	-0.037575	0.031103	-0.000005	-0.00000356	0.12618197	-0.00007198
6800201	42784.	-0.037632	0.031147	-0.000005	-0.00000356	-0.87363818	-0.00007203
6800201	42785.	-0.037687	0.031193	-0.000005	-0.00000356	0.12654181	-0.00007209
6800201	42786.	-0.037743	0.031238	-0.000005	-0.00000356	0.12672193	-0.00007215
6800201	42787.	-0.037800	0.031283	-0.000005	-0.00000357	0.12690218	-0.00007220
6800201	42788.	-0.037855	0.031327	-0.000005	-0.00000357	0.12708256	-0.00007225
6800201	42789.	-0.037910	0.031373	-0.000005	-0.00000358	0.12726308	-0.00007230
6800201	42790.	-0.037966	0.031417	-0.000005	-0.00000359	-0.87255627	-0.00007236
6800201	42791.	-0.038020	0.031463	-0.000004	-0.00000359	0.12762451	-0.00007241
6800201	42792.	-0.038073	0.031507	-0.000006	-0.00000359	0.12780542	-0.00007247
6800201	42793.	-0.038126	0.031552	-0.000006	-0.00000360	0.12798648	-0.00007252
6800201	42794.	-0.038179	0.031597	-0.000007	-0.00000360	0.12816768	-0.00007257
6800201	42795.	-0.038231	0.031643	-0.000007	-0.00000361	0.12834901	-0.00007264

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42796.	-0.038283	0.031689	-0.000007	-0.00000360	-0.87146952	-0.00007269
6800201	42797.	-0.038335	0.031734	-0.000006	-0.00000361	0.12871208	-0.00007274
6800201	42798.	-0.038388	0.031778	-0.000007	-0.00000361	0.12889381	-0.00007279
6800201	42799.	-0.038443	0.031824	-0.000006	-0.00000361	0.12907569	-0.00007285
6800201	42800.	-0.038497	0.031870	-0.000006	-0.00000361	0.12925768	-0.00007290
6800201	42801.	-0.038552	0.031914	-0.000006	-0.00000362	0.12943980	-0.00007294
6800201	42802.	-0.038609	0.031960	-0.000005	-0.00000362	-0.87037794	-0.00007299
6800201	42803.	-0.038665	0.032005	-0.000006	-0.00000361	0.12980442	-0.00007304
6800201	42804.	-0.038720	0.032051	-0.000006	-0.00000362	0.12998691	-0.00007308
6800201	42805.	-0.038776	0.032096	-0.000006	-0.00000362	0.13016950	-0.00007313
6800201	42806.	-0.038831	0.032141	-0.000006	-0.00000363	0.13035221	-0.00007317
6800201	42807.	-0.038886	0.032187	-0.000007	-0.00000362	0.13053502	-0.00007322
6800201	42808.	-0.038940	0.032232	-0.000007	-0.00000363	-0.86928206	-0.00007326
6800201	42809.	-0.038992	0.032277	-0.000008	-0.00000364	0.13090098	-0.00007331
6800201	42810.	-0.039045	0.032323	-0.000008	-0.00000364	0.13108413	-0.00007336
6800201	42811.	-0.039098	0.032369	-0.000008	-0.00000364	0.13126740	-0.00007341
6800201	42812.	-0.039150	0.032414	-0.000008	-0.00000365	0.13145078	-0.00007344
6800201	42813.	-0.039201	0.032460	-0.000008	-0.00000364	0.13163426	-0.00007349
6800201	42814.	-0.039255	0.032506	-0.000008	-0.00000364	-0.86818213	-0.00007354
6800201	42815.	-0.039307	0.032551	-0.000008	-0.00000365	0.13200157	-0.00007358
6800201	42816.	-0.039360	0.032597	-0.000007	-0.00000365	0.13218539	-0.00007362
6800201	42817.	-0.039413	0.032643	-0.000007	-0.00000365	0.13236931	-0.00007367
6800201	42818.	-0.039467	0.032688	-0.000007	-0.00000365	0.13255334	-0.00007371
6800201	42819.	-0.039522	0.032733	-0.000008	-0.00000365	0.13273749	-0.00007375
6800201	42820.	-0.039576	0.032779	-0.000008	-0.00000365	-0.86707825	-0.00007379
6800201	42821.	-0.039631	0.032825	-0.000007	-0.00000365	0.13310611	-0.00007384
6800201	42822.	-0.039686	0.032870	-0.000008	-0.00000365	0.13329058	-0.00007388
6800201	42823.	-0.039741	0.032916	-0.000008	-0.00000365	0.13347516	-0.00007392
6800201	42824.	-0.039797	0.032962	-0.000009	-0.00000366	0.13365984	-0.00007396
6800201	42825.	-0.039851	0.033008	-0.000009	-0.00000366	0.13384462	-0.00007401
6800201	42826.	-0.039904	0.033054	-0.000010	-0.00000366	-0.86597049	-0.00007404
6800201	42827.	-0.039957	0.033099	-0.000010	-0.00000366	0.13421451	-0.00007409
6800201	42828.	-0.040008	0.033145	-0.000010	-0.00000366	0.13439960	-0.00007413
6800201	42829.	-0.040060	0.033191	-0.000010	-0.00000367	0.13458480	-0.00007417
6800201	42830.	-0.040111	0.033237	-0.000010	-0.00000367	0.13477011	-0.00007422

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42831.	-0.040162	0.033282	-0.000009	-0.00000366	0.13495551	-0.00007426
6800201	42832.	-0.040214	0.033328	-0.000009	-0.00000367	0.13514102	-0.00007430
6800201	42833.	-0.040266	0.033374	-0.000009	-0.00000367	0.13532663	-0.00007434
6800201	42834.	-0.040318	0.033419	-0.000009	-0.00000367	0.13551234	-0.00007439
6800201	42835.	-0.040371	0.033465	-0.000010	-0.00000367	0.13569816	-0.00007442
6800201	42836.	-0.040425	0.033511	-0.000010	-0.00000366	0.13588408	-0.00007447
6800201	42837.	-0.040479	0.033557	-0.000010	-0.00000367	0.13607010	-0.00007451
6800201	42838.	-0.040534	0.033602	-0.000011	-0.00000367	0.13625624	-0.00007455
6800201	42839.	-0.040589	0.033649	-0.000011	-0.00000368	0.13644247	-0.00007459
6800201	42840.	-0.040644	0.033695	-0.000012	-0.00000367	0.13662881	-0.00007464
6800201	42841.	-0.040699	0.033740	-0.000012	-0.00000368	0.13681527	-0.00007467
6800201	42842.	-0.040753	0.033786	-0.000013	-0.00000368	0.13700182	-0.00007472
6800201	42843.	-0.040807	0.033833	-0.000013	-0.00000369	0.13718847	-0.00007476
6800201	42844.	-0.040861	0.033879	-0.000013	-0.00000369	0.13737523	-0.00007480
6800201	42845.	-0.040913	0.033925	-0.000012	-0.00000369	0.13756210	-0.00007484
6800201	42846.	-0.040966	0.033970	-0.000013	-0.00000369	0.13774908	-0.00007489
6800201	42847.	-0.041018	0.034016	-0.000013	-0.00000369	0.13793616	-0.00007493
6800201	42848.	-0.041068	0.034062	-0.000013	-0.00000369	0.13812335	-0.00007498
6800201	42849.	-0.041120	0.034108	-0.000013	-0.00000370	-0.86168935	-0.00007503
6800201	42850.	-0.041172	0.034153	-0.000013	-0.00000370	0.13849805	-0.00007507
6800201	42851.	-0.041223	0.034199	-0.000013	-0.00000370	0.13868557	-0.00007511
6800201	42852.	-0.041276	0.034245	-0.000013	-0.00000370	0.13887321	-0.00007515
6800201	42853.	-0.041330	0.034292	-0.000014	-0.00000370	0.13906095	-0.00007520
6800201	42854.	-0.041386	0.034337	-0.000014	-0.00000370	0.13924881	-0.00007524
6800201	42855.	-0.041442	0.034384	-0.000015	-0.00000371	-0.86056322	-0.00007529
6800201	42856.	-0.041499	0.034429	-0.000016	-0.00000371	0.13962486	-0.00007533
6800201	42857.	-0.041556	0.034476	-0.000016	-0.00000371	0.13981307	-0.00007538
6800201	42858.	359.958388	0.034521	-0.000017	-0.00000372	0.14000138	-0.00007542
6800201	42859.	-0.041668	0.034567	-0.000016	-0.00000371	0.14018981	-0.00007547
6800201	42860.	-0.041723	0.034613	-0.000016	-0.00000372	0.14037837	-0.00007552
6800201	42861.	-0.041777	0.034660	-0.000016	-0.00000372	-0.85943296	-0.00007557
6800201	42862.	-0.041832	0.034705	-0.000016	-0.00000373	0.14075583	-0.00007562
6800201	42863.	-0.041886	0.034751	-0.000016	-0.00000374	0.14094474	-0.00007567
6800201	42864.	-0.041941	0.034798	-0.000016	-0.00000374	0.14113378	-0.00007572
6800201	42865.	-0.041995	0.034843	-0.000016	-0.00000374	0.14132297	-0.00007578

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	42866.	-0.042050	0.034890	-0.000016	-0.00000375	0.14151228	-0.00007583
6800201	42867.	-0.042106	0.034936	-0.000017	-0.00000375	-0.85829826	-0.00007588
6800201	42868.	-0.042162	0.034983	-0.000017	-0.00000375	0.14189133	-0.00007594
6800201	42869.	-0.042218	0.035028	-0.000017	-0.00000375	0.14208105	-0.00007599
6800201	42870.	-0.042276	0.035075	-0.000018	-0.00000376	0.14227090	-0.00007605
6800201	42871.	-0.042335	0.035121	-0.000019	-0.00000375	0.14246088	-0.00007609
6800201	42872.	-0.042393	0.035167	-0.000019	-0.00000377	0.14265101	-0.00007615
6800201	42873.	-0.042454	0.035213	-0.000020	-0.00000376	-0.85715873	-0.00007620
6800201	42874.	-0.042514	0.035259	-0.000020	-0.00000377	0.14303166	-0.00007625
6800201	42875.	-0.042574	0.035306	-0.000020	-0.00000377	0.14322219	-0.00007631
6800201	42876.	-0.042634	0.035352	-0.000019	-0.00000377	0.14341285	-0.00007637
6800201	42877.	-0.042695	0.035398	-0.000019	-0.00000378	0.14360363	-0.00007641
6800201	42878.	-0.042755	0.035445	-0.000019	-0.00000378	0.14379454	-0.00007647
6800201	42879.	-0.042814	0.035491	-0.000019	-0.00000379	-0.85601442	-0.00007651
6800201	42880.	-0.042874	0.035537	-0.000019	-0.00000379	0.14417675	-0.00007656
6800201	42881.	-0.042933	0.035583	-0.000019	-0.00000380	0.14436804	-0.00007662
6800201	42882.	-0.042992	0.035629	-0.000019	-0.00000380	0.14455947	-0.00007668
6800201	42883.	-0.043051	0.035676	-0.000020	-0.00000380	0.14475103	-0.00007673
6800201	42884.	-0.043110	0.035722	-0.000020	-0.00000381	0.14494273	-0.00007679
6800201	42885.	-0.043171	0.035769	-0.000022	-0.00000381	-0.85486542	-0.00007684
6800201	42886.	-0.043231	0.035816	-0.000021	-0.00000382	0.14532656	-0.00007690
6800201	42887.	-0.043293	0.035862	-0.000022	-0.00000382	0.14551868	-0.00007695
6800201	42888.	-0.043356	0.035908	-0.000022	-0.00000382	0.14571095	-0.00007701
6800201	42889.	-0.043419	0.035954	-0.000022	-0.00000383	0.14590336	-0.00007707
6800201	42890.	-0.043482	0.036001	-0.000022	-0.00000383	0.14609591	-0.00007711
6800201	42891.	-0.043546	0.036048	-0.000022	-0.00000383	-0.85371139	-0.00007718
6800201	42892.	-0.043609	0.036094	-0.000022	-0.00000384	0.14648144	-0.00007723
6800201	42893.	-0.043672	0.036141	-0.000021	-0.00000384	0.14667440	-0.00007728
6800201	42894.	-0.043734	0.036187	-0.000021	-0.00000385	0.14686751	-0.00007734
6800201	42895.	-0.043796	0.036234	-0.000021	-0.00000384	0.14706075	-0.00007740
6800201	42896.	-0.043859	0.036281	-0.000022	-0.00000385	0.14725414	-0.00007745
6800201	42897.	-0.043920	0.036327	-0.000022	-0.00000386	-0.85255235	-0.00007751
6800201	42898.	-0.043981	0.036375	-0.000022	-0.00000386	0.14764131	-0.00007756
6800201	42899.	-0.044042	0.036421	-0.000022	-0.00000386	0.14783511	-0.00007762
6800201	42900.	-0.044103	0.036468	-0.000023	-0.00000386	0.14802904	-0.00007768

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42901.	-0.044164	0.036515	-0.000024	-0.00000387	0.14822313	-0.00007774
6800201	42902.	-0.044225	0.036561	-0.000024	-0.00000387	0.14841737	-0.00007780
6800201	42903.	-0.044287	0.036608	-0.000025	-0.00000387	0.14861176	-0.00007786
6800201	42904.	-0.044349	0.036655	-0.000025	-0.00000388	0.14880629	-0.00007791
6800201	42905.	-0.044412	0.036702	-0.000024	-0.00000388	0.14900096	-0.00007797
6800201	42906.	-0.044474	0.036749	-0.000024	-0.00000388	0.14919575	-0.00007802
6800201	42907.	-0.044536	0.036796	-0.000024	-0.00000388	0.14939068	-0.00007807
6800201	42908.	-0.044598	0.036843	-0.000024	-0.00000388	-0.85041426	-0.00007813
6800201	42909.	-0.044661	0.036890	-0.000023	-0.00000388	0.14978093	-0.00007818
6800201	42910.	-0.044722	0.036938	-0.000023	-0.00000389	0.14997625	-0.00007823
6800201	42911.	-0.044783	0.036984	-0.000024	-0.00000389	0.15017169	-0.00007828
6800201	42912.	-0.044843	0.037031	-0.000023	-0.00000389	0.15036728	-0.00007833
6800201	42913.	-0.044904	0.037079	-0.000024	-0.00000389	0.15056300	-0.00007840
6800201	42914.	-0.044964	0.037126	-0.000025	-0.00000390	-0.84924115	-0.00007845
6800201	42915.	-0.045025	0.037173	-0.000025	-0.00000389	0.15095483	-0.00007850
6800201	42916.	-0.045085	0.037220	-0.000026	-0.00000390	0.15115097	-0.00007855
6800201	42917.	-0.045145	0.037267	-0.000026	-0.00000391	0.15134723	-0.00007861
6800201	42918.	-0.045205	0.037315	-0.000026	-0.00000391	0.15154363	-0.00007867
6800201	42919.	-0.045263	0.037362	-0.000026	-0.00000391	0.15174017	-0.00007872
6800201	42920.	-0.045323	0.037409	-0.000025	-0.00000391	-0.84806317	-0.00007877
6800201	42921.	-0.045381	0.037456	-0.000025	-0.00000392	0.15213362	-0.00007883
6800201	42922.	-0.045439	0.037503	-0.000025	-0.00000392	0.15233054	-0.00007887
6800201	42923.	-0.045497	0.037551	-0.000025	-0.00000392	0.15252759	-0.00007892
6800201	42924.	-0.045555	0.037599	-0.000025	-0.00000392	0.15272476	-0.00007897
6800201	42925.	-0.045612	0.037646	-0.000025	-0.00000392	0.15292204	-0.00007902
6800201	42926.	-0.045670	0.037693	-0.000024	-0.00000393	-0.84688055	-0.00007907
6800201	42927.	-0.045728	0.037741	-0.000024	-0.00000392	0.15331698	-0.00007912
6800201	42928.	-0.045785	0.037788	-0.000025	-0.00000392	0.15351462	-0.00007916
6800201	42929.	-0.045845	0.037836	-0.000025	-0.00000393	0.15371239	-0.00007921
6800201	42930.	-0.045902	0.037884	-0.000025	-0.00000393	0.15391028	-0.00007926
6800201	42931.	-0.045961	0.037931	-0.000026	-0.00000393	0.15410828	-0.00007931
6800201	42932.	-0.046020	0.037979	-0.000027	-0.00000393	-0.84569361	-0.00007935
6800201	42933.	-0.046079	0.038026	-0.000027	-0.00000394	0.15450461	-0.00007939
6800201	42934.	-0.046137	0.038074	-0.000027	-0.00000394	0.15470294	-0.00007944
6800201	42935.	-0.046194	0.038122	-0.000027	-0.00000394	0.15490138	-0.00007948

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	42936.	-0.046249	0.038170	-0.000027	-0.00000394	0.15509994	-0.00007953
6800201	42937.	-0.046305	0.038218	-0.000026	-0.00000395	0.15529859	-0.00007957
6800201	42938.	-0.046359	0.038265	-0.000026	-0.00000396	-0.84450265	-0.00007961
6800201	42939.	-0.046413	0.038313	-0.000026	-0.00000395	0.15569622	-0.00007965
6800201	42940.	-0.046468	0.038361	-0.000025	-0.00000396	0.15589519	-0.00007970
6800201	42941.	-0.046524	0.038409	-0.000026	-0.00000396	0.15609427	-0.00007974
6800201	42942.	-0.046581	0.038457	-0.000026	-0.00000396	0.15629345	-0.00007978
6800201	42943.	-0.046638	0.038505	-0.000026	-0.00000396	0.15649274	-0.00007982
6800201	42944.	-0.046696	0.038552	-0.000027	-0.00000396	-0.84330786	-0.00007986
6800201	42945.	-0.046754	0.038600	-0.000027	-0.00000397	0.15689164	-0.00007990
6800201	42946.	-0.046813	0.038648	-0.000027	-0.00000398	0.15709124	-0.00007994
6800201	42947.	-0.046873	0.038696	-0.000028	-0.00000398	0.15729094	-0.00007998
6800201	42948.	-0.046933	0.038744	-0.000027	-0.00000398	0.15749075	-0.00008003
6800201	42949.	-0.046992	0.038792	-0.000028	-0.00000399	0.15769067	-0.00008006
6800201	42950.	-0.047051	0.038840	-0.000028	-0.00000399	-0.84210932	-0.00008011
6800201	42951.	-0.047110	0.038888	-0.000028	-0.00000399	0.15809078	-0.00008014
6800201	42952.	-0.047169	0.038937	-0.000027	-0.00000399	0.15829099	-0.00008018
6800201	42953.	-0.047226	0.038984	-0.000027	-0.00000400	0.15849128	-0.00008022
6800201	42954.	-0.047284	0.039033	-0.000027	-0.00000400	0.15869167	-0.00008026
6800201	42955.	-0.047342	0.039081	-0.000026	-0.00000401	0.15889216	-0.00008029
6800201	42956.	-0.047399	0.039129	-0.000026	-0.00000401	-0.84090726	-0.00008033
6800201	42957.	-0.047457	0.039177	-0.000026	-0.00000401	0.15929340	-0.00008037
6800201	42958.	-0.047515	0.039225	-0.000026	-0.00000401	0.15949414	-0.00008040
6800201	42959.	-0.047573	0.039273	-0.000026	-0.00000401	0.15969498	-0.00008043
6800201	42960.	-0.047632	0.039321	-0.000026	-0.00000402	0.15989591	-0.00008047
6800201	42961.	-0.047692	0.039370	-0.000027	-0.00000402	0.16009692	-0.00008050
6800201	42962.	-0.047753	0.039418	-0.000028	-0.00000402	-0.83970198	-0.00008054
6800201	42963.	-0.047816	0.039466	-0.000029	-0.00000403	0.16049919	-0.00008056
6800201	42964.	-0.047880	0.039515	-0.000029	-0.00000402	0.16070046	-0.00008060
6800201	42965.	-0.047944	0.039563	-0.000028	-0.00000403	0.16090180	-0.00008062
6800201	42966.	-0.048008	0.039612	-0.000028	-0.00000404	0.16110323	-0.00008066
6800201	42967.	-0.048073	0.039660	-0.000028	-0.00000404	0.16130471	-0.00008068
6800201	42968.	-0.048136	0.039708	-0.000027	-0.00000404	-0.83849373	-0.00008072
6800201	42969.	-0.048198	0.039757	-0.000026	-0.00000404	0.16170791	-0.00008074
6800201	42970.	-0.048259	0.039805	-0.000027	-0.00000404	0.16190960	-0.00008077

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	42971.	-0.048320	0.039853	-0.000026	-0.00000404	0.16211138	-0.00008080
6800201	42972.	-0.048381	0.039902	-0.000027	-0.00000405	0.16231321	-0.00008083
6800201	42973.	-0.048441	0.039951	-0.000027	-0.00000405	-0.83748488	-0.00008086
6800201	42974.	-0.048502	0.039999	-0.000027	-0.00000405	0.16271711	-0.00008089
6800201	42975.	-0.048563	0.040047	-0.000027	-0.00000406	0.16291915	-0.00008092
6800201	42976.	-0.048626	0.040096	-0.000028	-0.00000406	0.16312127	-0.00008094
6800201	42977.	-0.048690	0.040145	-0.000028	-0.00000405	0.16332347	-0.00008097
6800201	42978.	-0.048754	0.040193	-0.000029	-0.00000406	0.16352574	-0.00008099
6800201	42979.	-0.048819	0.040242	-0.000028	-0.00000406	-0.83627193	-0.00008102
6800201	42980.	-0.048885	0.040290	-0.000028	-0.00000406	0.16393046	-0.00008104
6800201	42981.	-0.048951	0.040339	-0.000028	-0.00000406	0.16413293	-0.00008107
6800201	42982.	-0.049018	0.040388	-0.000028	-0.00000406	0.16433546	-0.00008110
6800201	42983.	-0.049085	0.040436	-0.000027	-0.00000406	0.16453805	-0.00008112
6800201	42984.	-0.049152	0.040485	-0.000027	-0.00000406	0.16474070	-0.00008115
6800201	42985.	-0.049219	0.040534	-0.000026	-0.00000406	-0.83505659	-0.00008117
6800201	42986.	-0.049284	0.040582	-0.000026	-0.00000406	0.16514617	-0.00008120
6800201	42987.	-0.049350	0.040630	-0.000026	-0.00000406	0.16534901	-0.00008122
6800201	42988.	-0.049414	0.040680	-0.000026	-0.00000407	0.16555190	-0.00008125
6800201	42989.	-0.049478	0.040728	-0.000026	-0.00000407	0.16575485	-0.00008128
6800201	42990.	-0.049541	0.040777	-0.000026	-0.00000408	0.16595786	-0.00008130
6800201	42991.	-0.049604	0.040826	-0.000027	-0.00000408	-0.83383906	-0.00008133
6800201	42992.	-0.049667	0.040874	-0.000027	-0.00000407	0.16636408	-0.00008134
6800201	42993.	-0.049731	0.040924	-0.000028	-0.00000407	0.16656728	-0.00008137
6800201	42994.	-0.049796	0.040972	-0.000028	-0.00000407	0.16677055	-0.00008140
6800201	42995.	-0.049862	0.041021	-0.000027	-0.00000406	0.16697389	-0.00008143
6800201	42996.	-0.049929	0.041070	-0.000027	-0.00000406	0.16717730	-0.00008145
6800201	42997.	-0.049997	0.041119	-0.000027	-0.00000407	-0.83261924	-0.00008147
6800201	42998.	-0.050064	0.041168	-0.000026	-0.00000406	0.16758429	-0.00008150
6800201	42999.	-0.050132	0.041217	-0.000026	-0.00000406	0.16778790	-0.00008152
6800201	43000.	-0.050200	0.041266	-0.000025	-0.00000406	0.16799156	-0.00008155
6800201	43001.	-0.050267	0.041315	-0.000025	-0.00000406	0.16819528	-0.00008158
6800201	43002.	-0.050333	0.041364	-0.000025	-0.00000406	0.16839907	-0.00008161
6800201	43003.	-0.050398	0.041413	-0.000024	-0.00000407	-0.83139708	-0.00008163
6800201	43004.	-0.050463	0.041463	-0.000025	-0.00000406	0.16880684	-0.00008166
6800201	43005.	-0.050527	0.041512	-0.000024	-0.00000407	0.16901081	-0.00008169

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43006.	-0.050592	0.041561	-0.000025	-0.00000406	0.16921485	-0.00008171
6800201	43007.	-0.050655	0.041610	-0.000025	-0.00000406	0.16941895	-0.00008174
6800201	43008.	-0.050717	0.041658	-0.000025	-0.00000406	0.16962312	-0.00008176
6800201	43009.	-0.050780	0.041708	-0.000025	-0.00000406	-0.83017265	-0.00008179
6800201	43010.	-0.050843	0.041757	-0.000025	-0.00000406	0.17003164	-0.00008181
6800201	43011.	-0.050906	0.041806	-0.000025	-0.00000405	0.17023600	-0.00008184
6800201	43012.	-0.050968	0.041856	-0.000025	-0.00000406	0.17044042	-0.00008186
6800201	43013.	-0.051032	0.041906	-0.000025	-0.00000405	0.17064491	-0.00008188
6800201	43014.	-0.051095	0.041955	-0.000024	-0.00000405	0.17084947	-0.00008192
6800201	43015.	-0.051160	0.042004	-0.000023	-0.00000404	-0.82894590	-0.00008194
6800201	43016.	-0.051225	0.042053	-0.000023	-0.00000405	0.17125880	-0.00008197
6800201	43017.	-0.051290	0.042103	-0.000022	-0.00000404	0.17146357	-0.00008200
6800201	43018.	-0.051356	0.042152	-0.000022	-0.00000404	0.17166841	-0.00008203
6800201	43019.	-0.051421	0.042202	-0.000022	-0.00000404	0.17187333	-0.00008206
6800201	43020.	-0.051485	0.042252	-0.000022	-0.00000404	0.17207832	-0.00008208
6800201	43021.	-0.051548	0.042301	-0.000022	-0.00000404	-0.82771664	-0.00008211
6800201	43022.	-0.051610	0.042351	-0.000023	-0.00000404	0.17248848	-0.00008215
6800201	43023.	-0.051671	0.042400	-0.000023	-0.00000404	0.17269367	-0.00008217
6800201	43024.	-0.051731	0.042450	-0.000023	-0.00000404	0.17289895	-0.00008221
6800201	43025.	-0.051789	0.042500	-0.000023	-0.00000404	0.17310429	-0.00008224
6800201	43026.	-0.051848	0.042550	-0.000022	-0.00000404	0.17330971	-0.00008228
6800201	43027.	-0.051906	0.042600	-0.000022	-0.00000404	-0.82648478	-0.00008230
6800201	43028.	-0.051965	0.042650	-0.000021	-0.00000404	0.17372081	-0.00008233
6800201	43029.	-0.052025	0.042699	-0.000020	-0.00000404	0.17392648	-0.00008237
6800201	43030.	-0.052084	0.042749	-0.000020	-0.00000403	0.17413223	-0.00008241
6800201	43031.	-0.052144	0.042799	-0.000019	-0.00000403	0.17433807	-0.00008244
6800201	43032.	-0.052205	0.042850	-0.000019	-0.00000403	0.17454400	-0.00008247
6800201	43033.	-0.052267	0.042899	-0.000019	-0.00000402	-0.82524998	-0.00008251
6800201	43034.	-0.052328	0.042950	-0.000019	-0.00000403	0.17495612	-0.00008254
6800201	43035.	-0.052390	0.042999	-0.000019	-0.00000403	0.17516231	-0.00008258
6800201	43036.	-0.052450	0.043050	-0.000019	-0.00000403	0.17536860	-0.00008262
6800201	43037.	-0.052512	0.043100	-0.000018	-0.00000403	0.17557499	-0.00008266
6800201	43038.	-0.052572	0.043150	-0.000019	-0.00000403	-0.82421853	-0.00008269
6800201	43039.	-0.052632	0.043200	-0.000019	-0.00000403	-0.82401194	-0.00008274
6800201	43040.	-0.052691	0.043251	-0.000019	-0.00000404	0.17619473	-0.00008278

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	43041.	-0.052748	0.043302	-0.000018	-0.00000404	0.17640152	-0.00008282
6800201	43042.	-0.052804	0.043352	-0.000018	-0.00000404	0.17660840	-0.00008286
6800201	43043.	-0.052860	0.043403	-0.000018	-0.00000404	0.17681541	-0.00008291
6800201	43044.	-0.052914	0.043453	-0.000017	-0.00000404	-0.82297748	-0.00008296
6800201	43045.	-0.052968	0.043504	-0.000016	-0.00000405	0.17722972	-0.00008300
6800201	43046.	-0.053023	0.043555	-0.000016	-0.00000405	0.17743705	-0.00008304
6800201	43047.	-0.053078	0.043606	-0.000015	-0.00000404	0.17764450	-0.00008309
6800201	43048.	-0.053134	0.043656	-0.000015	-0.00000405	0.17785206	-0.00008314
6800201	43049.	-0.053192	0.043707	-0.000014	-0.00000405	0.17805975	-0.00008318
6800201	43050.	-0.053251	0.043758	-0.000014	-0.00000404	-0.82173244	-0.00008324
6800201	43051.	-0.053312	0.043808	-0.000015	-0.00000404	0.17847549	-0.00008328
6800201	43052.	-0.053372	0.043859	-0.000015	-0.00000404	0.17868356	-0.00008333
6800201	43053.	-0.053433	0.043910	-0.000016	-0.00000405	0.17889174	-0.00008339
6800201	43054.	-0.053493	0.043961	-0.000015	-0.00000406	0.17910006	-0.00008344
6800201	43055.	-0.053552	0.044012	-0.000015	-0.00000406	0.17930851	-0.00008349
6800201	43056.	-0.053609	0.044064	-0.000014	-0.00000407	-0.82048290	-0.00008354
6800201	43057.	-0.053666	0.044115	-0.000014	-0.00000407	0.17972581	-0.00008360
6800201	43058.	-0.053722	0.044167	-0.000013	-0.00000408	0.17993466	-0.00008365
6800201	43059.	-0.053778	0.044218	-0.000013	-0.00000408	0.18014364	-0.00008371
6800201	43060.	-0.053833	0.044269	-0.000013	-0.00000408	0.18035275	-0.00008377
6800201	43061.	-0.053888	0.044321	-0.000012	-0.00000410	0.18056202	-0.00008383
6800201	43062.	-0.053943	0.044372	-0.000011	-0.00000410	-0.81922857	-0.00008388
6800201	43063.	-0.053998	0.044423	-0.000010	-0.00000410	0.18098097	-0.00008394
6800201	43064.	-0.054055	0.044475	-0.000011	-0.00000410	0.18119068	-0.00008401
6800201	43065.	-0.054111	0.044527	-0.000010	-0.00000411	0.18140054	-0.00008407
6800201	43066.	-0.054169	0.044578	-0.000010	-0.00000411	0.18161054	-0.00008412
6800201	43067.	-0.054229	0.044631	-0.000011	-0.00000411	0.18182070	-0.00008418
6800201	43068.	-0.054290	0.044683	-0.000011	-0.00000412	-0.81796897	-0.00008425
6800201	43069.	-0.054352	0.044734	-0.000011	-0.00000412	0.18224152	-0.00008432
6800201	43070.	-0.054414	0.044787	-0.000011	-0.00000413	0.18245219	-0.00008438
6800201	43071.	-0.054478	0.044838	-0.000011	-0.00000413	0.18266303	-0.00008445
6800201	43072.	-0.054541	0.044891	-0.000011	-0.00000414	0.18287401	-0.00008451
6800201	43073.	-0.054603	0.044943	-0.000010	-0.00000415	0.18308516	-0.00008457
6800201	43074.	-0.054664	0.044996	-0.000010	-0.00000416	-0.81670354	-0.00008463
6800201	43075.	-0.054724	0.045048	-0.000009	-0.00000417	0.18350792	-0.00008470

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43076.	-0.054781	0.045099	-0.000008	-0.00000418	0.18371952	-0.00008477
6800201	43077.	-0.054838	0.045152	-0.000008	-0.00000418	0.18393129	-0.00008483
6800201	43078.	-0.054895	0.045204	-0.000008	-0.00000419	0.18414323	-0.00008490
6800201	43079.	-0.054953	0.045256	-0.000007	-0.00000420	0.18435532	-0.00008497
6800201	43080.	359.944988	0.045309	-0.000007	-0.00000420	-0.81543241	-0.00008503
6800201	43081.	-0.055072	0.045361	-0.000008	-0.00000421	0.18478002	-0.00008509
6800201	43082.	-0.055135	0.045414	-0.000008	-0.00000421	0.18499261	-0.00008515
6800201	43083.	-0.055198	0.045467	-0.000008	-0.00000422	0.18520537	-0.00008522
6800201	43084.	-0.055264	0.045520	-0.000008	-0.00000422	0.18541829	-0.00008528
6800201	43085.	-0.055330	0.045573	-0.000008	-0.00000422	0.18563136	-0.00008534
6800201	43086.	-0.055397	0.045626	-0.000008	-0.00000423	-0.81415541	-0.00008540
6800201	43087.	-0.055464	0.045679	-0.000008	-0.00000424	0.18605796	-0.00008546
6800201	43088.	-0.055531	0.045732	-0.000008	-0.00000424	0.18627147	-0.00008552
6800201	43089.	-0.055598	0.045785	-0.000007	-0.00000425	0.18648513	-0.00008557
6800201	43090.	-0.055665	0.045839	-0.000007	-0.00000426	0.18669892	-0.00008563
6800201	43091.	-0.055730	0.045891	-0.000006	-0.00000427	0.18691285	-0.00008568
6800201	43092.	-0.055795	0.045945	-0.000005	-0.00000427	-0.81287309	-0.00008574
6800201	43093.	-0.055859	0.045998	-0.000005	-0.00000428	0.18734112	-0.00008579
6800201	43094.	-0.055923	0.046051	-0.000004	-0.00000428	0.18755546	-0.00008585
6800201	43095.	-0.055987	0.046104	-0.000005	-0.00000429	0.18776994	-0.00008591
6800201	43096.	-0.056051	0.046157	-0.000005	-0.00000429	0.18798457	-0.00008597
6800201	43097.	-0.056114	0.046211	-0.000004	-0.00000430	0.18819934	-0.00008603
6800201	43098.	-0.056179	0.046265	-0.000005	-0.00000430	-0.81158574	-0.00008607
6800201	43099.	-0.056246	0.046318	-0.000006	-0.00000430	0.18862930	-0.00008612
6800201	43100.	-0.056313	0.046372	-0.000006	-0.00000430	0.18884449	-0.00008618
6800201	43101.	-0.056383	0.046426	-0.000006	-0.00000431	0.18905979	-0.00008623
6800201	43102.	-0.056453	0.046479	-0.000006	-0.00000431	0.18927524	-0.00008628
6800201	43103.	-0.056525	0.046533	-0.000006	-0.00000431	-0.81050919	-0.00008633
6800201	43104.	-0.056597	0.046586	-0.000005	-0.00000432	-0.81029348	-0.00008638
6800201	43105.	-0.056669	0.046640	-0.000004	-0.00000432	0.18992234	-0.00008643
6800201	43106.	-0.056741	0.046694	-0.000003	-0.00000433	0.19013827	-0.00008648
6800201	43107.	-0.056810	0.046748	-0.000004	-0.00000433	0.19035433	-0.00008652
6800201	43108.	-0.056880	0.046801	-0.000003	-0.00000434	0.19057049	-0.00008657
6800201	43109.	-0.056948	0.046855	-0.000002	-0.00000434	-0.80921323	-0.00008661
6800201	43110.	-0.057016	0.046910	-0.000002	-0.00000434	0.19100315	-0.00008666

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43111.	-0.057083	0.046963	-0.000003	-0.00000434	0.19121964	-0.00008670
6800201	43112.	-0.057151	0.047017	-0.000003	-0.00000434	0.19143625	-0.00008674
6800201	43113.	-0.057218	0.047072	-0.000004	-0.00000435	0.19165297	-0.00008679
6800201	43114.	-0.057286	0.047125	-0.000004	-0.00000434	0.19186978	-0.00008683
6800201	43115.	-0.057354	0.047180	-0.000004	-0.00000435	-0.80791330	-0.00008687
6800201	43116.	-0.057423	0.047234	-0.000004	-0.00000435	0.19230373	-0.00008690
6800201	43117.	-0.057492	0.047288	-0.000004	-0.00000435	0.19252086	-0.00008695
6800201	43118.	-0.057562	0.047342	-0.000004	-0.00000435	0.19273808	-0.00008699
6800201	43119.	-0.057633	0.047397	-0.000004	-0.00000434	0.19295541	-0.00008703
6800201	43120.	-0.057704	0.047451	-0.000003	-0.00000434	0.19317283	-0.00008707
6800201	43121.	-0.057776	0.047505	-0.000003	-0.00000434	-0.80660966	-0.00008710
6800201	43122.	-0.057847	0.047559	-0.000002	-0.00000433	0.19360795	-0.00008714
6800201	43123.	-0.057919	0.047614	-0.000002	-0.00000434	0.19382566	-0.00008718
6800201	43124.	-0.057989	0.047668	-0.000002	-0.00000434	0.19404346	-0.00008722
6800201	43125.	-0.058059	0.047723	-0.000001	-0.00000434	0.19426135	-0.00008725
6800201	43126.	-0.058128	0.047777	-0.000001	-0.00000434	0.19447934	-0.00008729
6800201	43127.	-0.058196	0.047832	-0.000001	-0.00000433	-0.80530259	-0.00008733
6800201	43128.	-0.058264	0.047887	-0.000002	-0.00000433	0.19491557	-0.00008736
6800201	43129.	-0.058330	0.047941	-0.000003	-0.00000434	0.19513382	-0.00008740
6800201	43130.	-0.058396	0.047996	-0.000003	-0.00000434	0.19535217	-0.00008744
6800201	43131.	-0.058462	0.048051	-0.000004	-0.00000433	0.19557060	-0.00008747
6800201	43132.	-0.058529	0.048105	-0.000003	-0.00000433	0.19578912	-0.00008750
6800201	43133.	-0.058596	0.048160	-0.000003	-0.00000433	-0.80399227	-0.00008754
6800201	43134.	-0.058664	0.048214	-0.000003	-0.00000432	0.19622641	-0.00008757
6800201	43135.	-0.058731	0.048269	-0.000002	-0.00000432	0.19644518	-0.00008761
6800201	43136.	-0.058798	0.048324	-0.000001	-0.00000432	0.19666403	-0.00008764
6800201	43137.	-0.058865	0.048378	-0.000002	-0.00000431	0.19688295	-0.00008767
6800201	43138.	-0.058931	0.048433	-0.000001	-0.00000431	0.19710195	-0.00008771
6800201	43139.	-0.058998	0.048488	-0.000001	-0.00000431	-0.80267897	-0.00008774
6800201	43140.	-0.059062	0.048543	-0.000001	-0.00000431	0.19754019	-0.00008776
6800201	43141.	-0.059128	0.048598	-0.000001	-0.00000430	0.19775942	-0.00008779
6800201	43142.	-0.059192	0.048653	-0.000001	-0.00000430	0.19797873	-0.00008783
6800201	43143.	-0.059256	0.048709	-0.000001	-0.00000430	0.19819813	-0.00008786
6800201	43144.	-0.059320	0.048763	-0.000002	-0.00000429	0.19841761	-0.00008789
6800201	43145.	-0.059383	0.048818	-0.000002	-0.00000430	-0.80136284	-0.00008792

EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
6800201	43146.	-0.059446	0.048874	-0.000003	-0.00000429	0.19885679	-0.00008795
6800201	43147.	-0.059509	0.048928	-0.000003	-0.00000429	0.19907650	-0.00008798
6800201	43148.	-0.059571	0.048983	-0.000002	-0.00000429	0.19929628	-0.00008802
6800201	43149.	-0.059633	0.049038	-0.000003	-0.00000429	0.19951615	-0.00008805
6800201	43150.	-0.059694	0.049094	-0.000002	-0.00000429	0.19973609	-0.00008808
6800201	43151.	-0.059754	0.049149	-0.000002	-0.00000429	-0.80004390	-0.00008811
6800201	43152.	-0.059814	0.049204	-0.000001	-0.00000428	0.20017618	-0.00008814
6800201	43153.	-0.059873	0.049259	-0.000001	-0.00000427	0.20039633	-0.00008817
6800201	43154.	-0.059932	0.049314	0.000001	-0.00000427	0.20061656	-0.00008820
6800201	43155.	-0.059991	0.049370	0.000000	-0.00000427	0.20083685	-0.00008822
6800201	43156.	-0.060050	0.049425	0.000000	-0.00000427	0.20105723	-0.00008826
6800201	43157.	-0.060111	0.049481	0.000001	-0.00000427	-0.79872232	-0.00008828
6800201	43158.	-0.060172	0.049536	0.000000	-0.00000427	0.20149821	-0.00008832
6800201	43159.	-0.060233	0.049591	-0.000001	-0.00000427	0.20171883	-0.00008835
6800201	43160.	-0.060294	0.049647	-0.000002	-0.00000427	0.20193952	-0.00008839
6800201	43161.	-0.060356	0.049702	-0.000002	-0.00000427	0.20216030	-0.00008841
6800201	43162.	-0.060416	0.049758	-0.000002	-0.00000427	0.20238115	-0.00008845
6800201	43163.	-0.060476	0.049813	-0.000002	-0.00000426	-0.79739793	-0.00008848
6800201	43164.	-0.060535	0.049868	-0.000001	-0.00000426	0.20282309	-0.00008851
6800201	43165.	-0.060594	0.049924	-0.000002	-0.00000427	0.20304417	-0.00008854
6800201	43166.	-0.060651	0.049979	-0.000001	-0.00000427	0.20326533	-0.00008857
6800201	43167.	-0.060709	0.050036	0.000000	-0.00000427	0.20348657	-0.00008861
6800201	43168.	-0.060767	0.050091	0.000000	-0.00000427	-0.79629211	-0.00008864
6800201	43169.	-0.060825	0.050147	0.000001	-0.00000427	-0.79607072	-0.00008868
6800201	43170.	-0.060883	0.050203	0.000000	-0.00000427	0.20415077	-0.00008870
6800201	43171.	-0.060942	0.050258	0.000001	-0.00000427	0.20437234	-0.00008874
6800201	43172.	-0.061001	0.050314	0.000000	-0.00000428	0.20459399	-0.00008877
6800201	43173.	-0.061062	0.050370	0.000000	-0.00000427	0.20481573	-0.00008881
6800201	43174.	-0.061124	0.050426	0.000000	-0.00000428	-0.79496244	-0.00008885
6800201	43175.	-0.061186	0.050481	-0.000001	-0.00000428	-0.79474052	-0.00008888
6800201	43176.	-0.061249	0.050538	-0.000002	-0.00000428	0.20548150	-0.00008891
6800201	43177.	-0.061313	0.050593	-0.000002	-0.00000428	0.20570361	-0.00008895
6800201	43178.	-0.061376	0.050649	-0.000002	-0.00000428	0.20592580	-0.00008898
6800201	43179.	-0.061440	0.050705	-0.000002	-0.00000428	0.20614810	-0.00008902
6800201	43180.	-0.061504	0.050760	-0.000002	-0.00000429	-0.79362952	-0.00008906

EPOCH	GEOS-B		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
6800201	43181.	-0.061568	0.050817	-0.000002	-0.00000430	0.20659295	-0.00008910
6800201	43182.	-0.061630	0.050873	-0.000001	-0.00000430	0.20681552	-0.00008913
6800201	43183.	-0.061693	0.050929	-0.000001	-0.00000430	0.20703818	-0.00008917
6800201	43184.	-0.061755	0.050985	0.000000	-0.00000431	0.20726092	-0.00008922
6800201	43185.	-0.061816	0.051041	0.000001	-0.00000431	0.20748377	-0.00008925
6800201	43186.	-0.061878	0.051097	0.000001	-0.00000432	-0.79229329	-0.00008930
6800201	43187.	-0.061941	0.051153	0.000000	-0.00000432	0.20792977	-0.00008934
6800201	43188.	-0.062004	0.051210	-0.000001	-0.00000432	0.20815292	-0.00008937
6800201	43189.	-0.062068	0.051265	-0.000001	-0.00000432	0.20837618	-0.00008942
6800201	43190.	-0.062134	0.051322	-0.000002	-0.00000432	0.20859956	-0.00008946
6800201	43191.	-0.062202	0.051378	-0.000002	-0.00000432	0.20882304	-0.00008950
6800201	43192.	-0.062270	0.051434	-0.000003	-0.00000432	-0.79095336	-0.00008955
6800201	43193.	-0.062339	0.051490	-0.000003	-0.00000433	0.20927035	-0.00008959
6800201	43194.	-0.062409	0.051547	-0.000003	-0.00000433	0.20949416	-0.00008963
6800201	43195.	-0.062479	0.051603	-0.000003	-0.00000434	0.20971810	-0.00008967
6800201	43196.	-0.062549	0.051659	-0.000002	-0.00000434	0.20994213	-0.00008972
6800201	43197.	-0.062619	0.051716	-0.000002	-0.00000434	0.21016627	-0.00008976
6800201	43198.	-0.062688	0.051772	-0.000001	-0.00000435	-0.78960950	-0.00008981
6800201	43199.	-0.062758	0.051829	-0.000001	-0.00000435	0.21061485	-0.00008985
6800201	43200.	-0.062825	0.051885	-0.000001	-0.00000436	0.21083930	-0.00008989
6800201	43201.	-0.062893	0.051941	-0.000001	-0.00000436	0.21106385	-0.00008993
6800201	43202.	-0.062961	0.051998	-0.000002	-0.00000436	0.21128852	-0.00008997
6800201	43203.	-0.063028	0.052054	-0.000001	-0.00000437	0.21151327	-0.00009001
6800201	43204.	-0.063095	0.052111	-0.000002	-0.00000436	-0.78826186	-0.00009005
6800201	43205.	-0.063163	0.052167	-0.000003	-0.00000437	0.21196311	-0.00009010
6800201	43206.	-0.063231	0.052223	-0.000004	-0.00000437	0.21218819	-0.00009014
6800201	43207.	-0.063300	0.052280	-0.000004	-0.00000437	0.21241338	-0.00009018
6800201	43208.	-0.063372	0.052337	-0.000005	-0.00000437	0.21263869	-0.00009023
6800201	43209.	-0.063443	0.052393	-0.000004	-0.00000437	0.21286410	-0.00009027
6800201	43210.	-0.063516	0.052450	-0.000005	-0.00000437	-0.78691037	-0.00009032
6800201	43211.	-0.063590	0.052506	-0.000005	-0.00000437	0.21331528	-0.00009037
6800201	43212.	-0.063663	0.052563	-0.000004	-0.00000437	0.21354106	-0.00009042
6800201	43213.	-0.063737	0.052620	-0.000004	-0.00000437	0.21376695	-0.00009046
6800201	43214.	-0.063809	0.052676	-0.000004	-0.00000438	0.21399296	-0.00009051
6800201	43215.	-0.063880	0.052733	-0.000003	-0.00000437	0.21421909	-0.00009056

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43216.	-0.063950	0.052790	-0.000003	-0.00000438	-0.78555466	-0.00009061
6800201	43217.	-0.064020	0.052846	-0.000003	-0.00000438	0.21467170	-0.00009066
6800201	43218.	-0.064088	0.052903	-0.000004	-0.00000438	0.21489819	-0.00009071
6800201	43219.	-0.064156	0.052960	-0.000006	-0.00000438	0.21512479	-0.00009075
6800201	43220.	-0.064223	0.053017	-0.000006	-0.00000438	0.21535151	-0.00009080
6800201	43221.	-0.064292	0.053073	-0.000007	-0.00000439	0.21557834	-0.00009085
6800201	43222.	-0.064360	0.053130	-0.000007	-0.00000439	-0.78419469	-0.00009090
6800201	43223.	-0.064428	0.053186	-0.000008	-0.00000438	0.21603239	-0.00009094
6800201	43224.	-0.064497	0.053243	-0.000008	-0.00000438	0.21625958	-0.00009099
6800201	43225.	-0.064566	0.053301	-0.000008	-0.00000438	0.21648690	-0.00009104
6800201	43226.	-0.064636	0.053357	-0.000008	-0.00000438	0.21671433	-0.00009109
6800201	43227.	-0.064704	0.053414	-0.000008	-0.00000439	0.21694189	-0.00009113
6800201	43228.	-0.064774	0.053471	-0.000008	-0.00000438	-0.78283044	-0.00009118
6800201	43229.	-0.064844	0.053528	-0.000007	-0.00000439	0.21739735	-0.00009123
6800201	43230.	-0.064913	0.053585	-0.000007	-0.00000438	0.21762526	-0.00009128
6800201	43231.	-0.064983	0.053642	-0.000007	-0.00000439	0.21785330	-0.00009132
6800201	43232.	-0.065053	0.053699	-0.000008	-0.00000438	0.21808145	-0.00009138
6800201	43233.	-0.065121	0.053755	-0.000008	-0.00000439	-0.78169028	-0.00009142
6800201	43234.	-0.065191	0.053812	-0.000008	-0.00000439	-0.78146188	-0.00009147
6800201	43235.	-0.065259	0.053869	-0.000009	-0.00000439	0.21876662	-0.00009151
6800201	43236.	-0.065326	0.053926	-0.000010	-0.00000439	0.21899525	-0.00009157
6800201	43237.	-0.065393	0.053983	-0.000011	-0.00000439	0.21922401	-0.00009161
6800201	43238.	-0.065459	0.054039	-0.000012	-0.00000440	0.21945287	-0.00009166
6800201	43239.	-0.065524	0.054096	-0.000012	-0.00000439	-0.78031814	-0.00009171
6800201	43240.	-0.065588	0.054153	-0.000013	-0.00000440	-0.78008902	-0.00009176
6800201	43241.	-0.065652	0.054211	-0.000012	-0.00000439	0.22014021	-0.00009182
6800201	43242.	-0.065716	0.054268	-0.000012	-0.00000440	0.22036957	-0.00009186
6800201	43243.	-0.065782	0.054324	-0.000012	-0.00000439	0.22059907	-0.00009191
6800201	43244.	-0.065848	0.054382	-0.000011	-0.00000439	0.22082867	-0.00009196
6800201	43245.	-0.065915	0.054438	-0.000011	-0.00000440	-0.77894160	-0.00009201
6800201	43246.	-0.065983	0.054495	-0.000011	-0.00000439	-0.77871174	-0.00009205
6800201	43247.	-0.066052	0.054553	-0.000011	-0.00000439	0.22151822	-0.00009211
6800201	43248.	-0.066121	0.054609	-0.000012	-0.00000439	0.22174832	-0.00009215
6800201	43249.	-0.066190	0.054666	-0.000012	-0.00000440	0.22197854	-0.00009220
6800201	43250.	-0.066258	0.054723	-0.000013	-0.00000440	0.22220888	-0.00009226

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43251.	-0.066327	0.054779	-0.000014	-0.00000440	-0.77756065	-0.00009230
6800201	43252.	-0.066395	0.054836	-0.000014	-0.00000441	0.22266994	-0.00009235
6800201	43253.	-0.066462	0.054893	-0.000015	-0.00000441	0.22290065	-0.00009241
6800201	43254.	-0.066528	0.054950	-0.000016	-0.00000441	0.22313149	-0.00009245
6800201	43255.	-0.066594	0.055008	-0.000016	-0.00000441	0.22336245	-0.00009250
6800201	43256.	-0.066659	0.055065	-0.000016	-0.00000442	0.22359351	-0.00009255
6800201	43257.	-0.066723	0.055122	-0.000016	-0.00000442	-0.77617530	-0.00009259
6800201	43258.	-0.066787	0.055179	-0.000016	-0.00000442	0.22405599	-0.00009264
6800201	43259.	-0.066851	0.055236	-0.000016	-0.00000443	0.22428740	-0.00009269
6800201	43260.	-0.066915	0.055293	-0.000015	-0.00000442	0.22451893	-0.00009273
6800201	43261.	-0.066981	0.055350	-0.000015	-0.00000443	0.22475056	-0.00009277
6800201	43262.	-0.067047	0.055407	-0.000015	-0.00000442	0.22498231	-0.00009282
6800201	43263.	-0.067114	0.055464	-0.000015	-0.00000442	-0.77478584	-0.00009286
6800201	43264.	-0.067183	0.055521	-0.000015	-0.00000443	0.22544613	-0.00009290
6800201	43265.	-0.067253	0.055578	-0.000016	-0.00000443	0.22567822	-0.00009295
6800201	43266.	-0.067324	0.055634	-0.000017	-0.00000443	0.22591042	-0.00009299
6800201	43267.	-0.067396	0.055691	-0.000018	-0.00000444	0.22614274	-0.00009304
6800201	43268.	-0.067467	0.055748	-0.000018	-0.00000444	0.22637518	-0.00009308
6800201	43269.	-0.067538	0.055806	-0.000019	-0.00000444	-0.77339227	-0.00009313
6800201	43270.	-0.067607	0.055863	-0.000019	-0.00000445	0.22684039	-0.00009318
6800201	43271.	-0.067674	0.055921	-0.000020	-0.00000445	0.22707314	-0.00009322
6800201	43272.	-0.067740	0.055977	-0.000019	-0.00000445	0.22730600	-0.00009326
6800201	43273.	-0.067804	0.056034	-0.000019	-0.00000446	0.22753896	-0.00009330
6800201	43274.	-0.067869	0.056092	-0.000019	-0.00000446	0.22777204	-0.00009335
6800201	43275.	-0.067933	0.056149	-0.000018	-0.00000446	-0.77199479	-0.00009339
6800201	43276.	-0.067999	0.056206	-0.000018	-0.00000446	0.22823851	-0.00009343
6800201	43277.	-0.068065	0.056264	-0.000018	-0.00000447	0.22847192	-0.00009348
6800201	43278.	-0.068133	0.056320	-0.000018	-0.00000447	0.22870543	-0.00009352
6800201	43279.	-0.068202	0.056377	-0.000019	-0.00000447	0.22893906	-0.00009357
6800201	43280.	-0.068272	0.056435	-0.000019	-0.00000447	0.22917281	-0.00009362
6800201	43281.	-0.068344	0.056491	-0.000021	-0.00000446	-0.77059331	-0.00009366
6800201	43282.	-0.068417	0.056548	-0.000021	-0.00000447	0.22964067	-0.00009370
6800201	43283.	-0.068490	0.056605	-0.000022	-0.00000447	0.22987477	-0.00009375
6800201	43284.	-0.068565	0.056663	-0.000023	-0.00000447	0.23010897	-0.00009379
6800201	43285.	-0.068638	0.056720	-0.000023	-0.00000448	0.23034329	-0.00009384

	EPOCH	GEOS-B PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
6800201	43286.	-0.068712	0.056778	-0.000023	-0.00000448	0.23057771	-0.00009387
6800201	43287.	-0.068784	0.056834	-0.000023	-0.00000448	-0.76918777	-0.00009392
6800201	43288.	-0.068855	0.056892	-0.000022	-0.00000449	0.23104685	-0.00009396
6800201	43289.	-0.068925	0.056949	-0.000022	-0.00000450	0.23128157	-0.00009400
6800201	43290.	-0.068992	0.057007	-0.000021	-0.00000450	0.23151640	-0.00009404
6800201	43291.	-0.069059	0.057064	-0.000021	-0.00000450	0.23175131	-0.00009408
6800201	43292.	-0.069124	0.057121	-0.000021	-0.00000450	0.23198632	-0.00009412
6800201	43293.	-0.069189	0.057178	-0.000021	-0.00000451	-0.76777857	-0.00009417
6800201	43294.	-0.069255	0.057234	-0.000022	-0.00000450	0.23245664	-0.00009421
6800201	43295.	-0.069323	0.057291	-0.000022	-0.00000450	0.23269197	-0.00009425
6800201	43296.	-0.069393	0.057349	-0.000023	-0.00000450	0.23292742	-0.00009430
6800201	43297.	-0.069465	0.057406	-0.000023	-0.00000450	0.23316299	-0.00009434
6800201	43298.	-0.069541	0.057464	-0.000025	-0.00000451	-0.76660132	-0.00009438
6800201	43299.	-0.069616	0.057521	-0.000025	-0.00000451	-0.76636552	-0.00009443
6800201	43300.	-0.069694	0.057579	-0.000025	-0.00000451	0.23387042	-0.00009448

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	42911.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42912.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42913.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42914.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42915.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42916.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42917.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42918.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42919.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42920.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42921.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42922.	0.000000	0.000000	0.000000	0.00000000	0.00000000	0.00000000
7603901	42923.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42924.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42925.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42926.	0.000000	0.000000	0.000000	0.00000000	0.00000001	-0.00000001
7603901	42927.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42928.	0.000000	0.000000	0.000000	0.00000000	0.00000001	0.00000000
7603901	42929.	0.000000	0.000000	0.000000	0.00000000	0.00000002	0.00000000
7603901	42930.	0.000000	0.000000	0.000000	0.00000000	0.00000002	0.00000000
7603901	42931.	0.000000	0.000000	0.000000	0.00000000	0.00000002	0.00000000
7603901	42932.	0.000000	0.000000	0.000000	0.00000000	0.00000003	0.00000000
7603901	42933.	0.000000	0.000000	0.000000	0.00000000	0.00000003	0.00000000
7603901	42934.	0.000000	0.000000	0.000000	0.00000000	0.00000003	-0.00000001
7603901	42935.	0.000000	0.000000	0.000000	0.00000000	0.00000003	0.00000000
7603901	42936.	0.000000	0.000000	0.000000	0.00000000	0.00000004	0.00000000
7603901	42937.	0.000000	0.000000	0.000000	0.00000000	0.00000004	0.00000000
7603901	42938.	0.000000	0.000000	0.000000	0.00000000	0.00000004	-0.00000001
7603901	42939.	0.000000	0.000000	0.000000	0.00000000	0.00000005	-0.00000001
7603901	42940.	0.000000	0.000000	0.000000	0.00000000	0.00000004	-0.00000001
7603901	42941.	0.000000	0.000000	0.000000	0.00000000	0.00000005	-0.00000001
7603901	42942.	0.000000	0.000000	0.000000	0.00000000	0.00000005	-0.00000001
7603901	42943.	0.000000	0.000000	0.000000	0.00000000	0.00000005	0.00000000
7603901	42944.	0.000000	0.000000	0.000000	0.00000000	0.00000006	0.00000000
7603901	42945.	0.000000	0.000000	0.000000	0.00000000	0.00000007	-0.00000001

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	42946.	0.000000	0.000000	0.000000	0.00000000	0.00000007	-0.00000001
7603901	42947.	0.000000	0.000000	0.000000	0.00000000	0.00000007	0.00000000
7603901	42948.	0.000000	0.000000	0.000000	0.00000000	0.00000008	0.00000000
7603901	42949.	0.000000	0.000000	0.000000	0.00000000	0.00000008	-0.00000001
7603901	42950.	0.000000	0.000000	0.000000	0.00000000	0.00000009	0.00000000
7603901	42951.	0.000000	0.000000	0.000000	0.00000000	0.00000009	-0.00000001
7603901	42952.	0.000000	0.000000	0.000000	0.00000000	0.00000009	-0.00000001
7603901	42953.	0.000000	0.000000	0.000000	0.00000000	0.00000010	-0.00000001
7603901	42954.	0.000000	0.000000	0.000000	0.00000000	0.00000010	-0.00000001
7603901	42955.	0.000000	0.000000	0.000000	0.00000000	0.00000011	0.00000000
7603901	42956.	0.000000	0.000000	0.000000	0.00000000	0.00000012	-0.00000001
7603901	42957.	0.000000	0.000001	0.000000	0.00000000	0.00000011	0.00000000
7603901	42958.	0.000000	0.000000	0.000000	0.00000000	0.00000012	-0.00000001
7603901	42959.	0.000000	0.000000	0.000000	0.00000000	0.00000013	-0.00000001
7603901	42960.	0.000000	0.000000	0.000000	0.00000000	0.00000013	0.00000000
7603901	42961.	0.000000	0.000000	0.000000	0.00000000	0.00000013	-0.00000001
7603901	42962.	0.000000	0.000000	0.000000	0.00000000	0.00000014	-0.00000001
7603901	42963.	0.000000	0.000000	0.000000	0.00000000	0.00000015	-0.00000001
7603901	42964.	0.000000	0.000000	0.000000	0.00000000	0.00000016	0.00000000
7603901	42965.	0.000000	0.000000	0.000000	0.00000000	0.00000016	-0.00000001
7603901	42966.	0.000000	0.000000	0.000000	0.00000000	0.00000016	-0.00000001
7603901	42967.	0.000000	0.000000	0.000000	0.00000000	0.00000017	-0.00000001
7603901	42968.	0.000000	0.000000	0.000000	0.00000000	0.00000018	-0.00000001
7603901	42969.	0.000000	0.000000	0.000000	0.00000000	0.00000019	-0.00000001
7603901	42970.	0.000000	0.000000	0.000000	0.00000000	0.00000019	-0.00000001
7603901	42971.	0.000000	0.000000	0.000000	0.00000000	0.00000020	-0.00000001
7603901	42972.	0.000000	0.000000	0.000000	0.00000000	0.00000020	0.00000000
7603901	42973.	0.000000	0.000000	0.000000	0.00000000	0.00000021	-0.00000001
7603901	42974.	0.000000	0.000000	0.000000	0.00000000	0.00000022	-0.00000001
7603901	42975.	0.000000	0.000000	0.000000	0.00000000	0.00000022	-0.00000001
7603901	42976.	0.000000	0.000000	0.000000	0.00000000	0.00000023	-0.00000001
7603901	42977.	0.000000	0.000000	0.000000	0.00000000	0.00000024	-0.00000001
7603901	42978.	0.000000	0.000000	0.000000	0.00000000	0.00000024	-0.00000001
7603901	42979.	0.000000	0.000000	0.000000	0.00000000	0.00000026	-0.00000001
7603901	42980.	0.000000	0.000000	0.000000	0.00000000	0.00000026	-0.00000001

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	42981.	0.000000	0.000000	0.000000	0.00000000	0.00000027	-0.00000001
7603901	42982.	0.000000	0.000000	0.000000	0.00000000	0.00000028	-0.00000001
7603901	42983.	0.000000	0.000000	0.000000	0.00000000	0.00000029	-0.00000001
7603901	42984.	0.000000	0.000000	0.000000	0.00000000	0.00000030	-0.00000001
7603901	42985.	0.000000	0.000000	0.000000	0.00000000	0.00000030	-0.00000001
7603901	42986.	0.000000	0.000000	0.000000	0.00000000	0.00000031	-0.00000001
7603901	42987.	0.000000	0.000000	0.000000	0.00000000	0.00000032	-0.00000001
7603901	42988.	0.000000	0.000000	0.000000	0.00000000	0.00000032	-0.00000001
7603901	42989.	0.000000	0.000000	0.000000	0.00000000	0.00000034	-0.00000001
7603901	42990.	0.000000	0.000000	0.000000	0.00000000	0.00000034	-0.00000001
7603901	42991.	0.000000	0.000000	0.000000	0.00000000	0.00000036	-0.00000001
7603901	42992.	0.000000	0.000000	0.000000	0.00000000	0.00000036	-0.00000001
7603901	42993.	0.000000	0.000000	0.000000	0.00000000	0.00000037	-0.00000001
7603901	42994.	0.000000	0.000000	0.000000	0.00000000	0.00000038	-0.00000001
7603901	42995.	0.000000	0.000000	0.000000	0.00000000	0.00000039	-0.00000001
7603901	42996.	0.000000	0.000000	0.000000	0.00000000	0.00000040	-0.00000001
7603901	42997.	0.000000	0.000000	0.000000	0.00000000	0.00000041	-0.00000002
7603901	42998.	0.000000	0.000000	0.000000	0.00000000	0.00000041	-0.00000001
7603901	42999.	-0.000001	0.000000	0.000000	0.00000000	0.00000042	-0.00000001
7603901	43000.	0.000000	0.000000	0.000000	0.00000000	0.00000044	-0.00000001
7603901	43001.	0.000000	0.000000	0.000000	0.00000000	0.00000045	-0.00000002
7603901	43002.	0.000000	0.000000	0.000000	0.00000000	0.00000046	-0.00000001
7603901	43003.	0.000000	0.000000	0.000000	0.00000000	0.00000047	-0.00000001
7603901	43004.	0.000000	0.000000	0.000000	0.00000000	0.00000048	-0.00000001
7603901	43005.	0.000000	0.000000	0.000000	0.00000000	0.00000049	-0.00000001
7603901	43006.	0.000000	0.000000	0.000000	0.00000000	0.00000050	-0.00000001
7603901	43007.	0.000000	0.000000	0.000000	0.00000000	0.00000051	-0.00000002
7603901	43008.	0.000000	0.000000	0.000000	0.00000000	0.00000051	-0.00000002
7603901	43009.	0.000000	0.000000	0.000000	0.00000000	0.00000053	-0.00000002
7603901	43010.	0.000000	0.000000	0.000000	0.00000000	0.00000054	-0.00000001
7603901	43011.	0.000000	0.000000	0.000000	0.00000000	0.00000055	-0.00000001
7603901	43012.	0.000000	0.000000	0.000000	0.00000000	0.00000056	-0.00000001
7603901	43013.	0.000000	0.000000	0.000000	0.00000000	0.00000057	-0.00000001
7603901	43014.	0.000000	0.000000	0.000000	0.00000000	0.00000058	-0.00000001
7603901	43015.	0.000000	0.000000	0.000000	0.00000000	0.00000060	-0.00000001

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43016.	0.000000	0.000001	0.000000	0.00000000	0.00000061	-0.00000002
7603901	43017.	-0.000001	0.000000	0.000000	0.00000000	0.00000062	-0.00000001
7603901	43018.	0.000000	0.000000	0.000000	0.00000000	0.00000063	-0.00000001
7603901	43019.	0.000000	0.000000	0.000000	0.00000000	0.00000064	-0.00000002
7603901	43020.	0.000000	0.000000	0.000000	0.00000000	0.00000066	-0.00000002
7603901	43021.	0.000000	0.000000	0.000000	0.00000000	0.00000066	-0.00000002
7603901	43022.	-0.000001	0.000001	0.000000	0.00000000	0.00000068	-0.00000002
7603901	43023.	0.000000	0.000000	0.000000	0.00000000	0.00000069	-0.00000001
7603901	43024.	0.000000	0.000000	0.000000	0.00000000	0.00000070	-0.00000002
7603901	43025.	0.000000	0.000000	0.000000	0.00000000	0.00000072	-0.00000002
7603901	43026.	0.000000	0.000000	0.000000	0.00000000	0.00000073	-0.00000002
7603901	43027.	0.000000	0.000000	0.000000	0.00000000	0.00000074	-0.00000002
7603901	43028.	0.000000	0.000000	0.000000	0.00000000	0.00000076	-0.00000002
7603901	43029.	-0.000001	0.000000	0.000000	0.00000000	0.00000077	-0.00000002
7603901	43030.	0.000000	0.000000	0.000000	0.00000000	0.00000078	-0.00000002
7603901	43031.	0.000000	0.000000	0.000000	0.00000000	0.00000079	-0.00000002
7603901	43032.	0.000000	0.000000	0.000000	0.00000000	0.00000080	-0.00000002
7603901	43033.	0.000000	0.000000	0.000000	0.00000000	0.00000082	-0.00000002
7603901	43034.	0.000000	0.000000	-0.000001	0.00000000	0.00000083	-0.00000001
7603901	43035.	0.000000	0.000001	0.000000	0.00000000	0.00000084	-0.00000002
7603901	43036.	0.000000	0.000000	0.000000	0.00000000	0.00000086	-0.00000002
7603901	43037.	0.000000	0.000000	0.000000	0.00000000	0.00000087	-0.00000001
7603901	43038.	0.000000	0.000000	0.000000	0.00000000	0.00000089	-0.00000002
7603901	43039.	0.000000	0.000000	0.000000	0.00000000	0.00000090	-0.00000002
7603901	43040.	0.000000	0.000000	0.000000	0.00000000	0.00000091	-0.00000001
7603901	43041.	0.000000	0.000000	0.000000	0.00000000	0.00000093	-0.00000002
7603901	43042.	0.000000	0.000000	0.000000	0.00000000	0.00000095	-0.00000002
7603901	43043.	0.000000	0.000000	0.000000	0.00000000	0.00000096	-0.00000002
7603901	43044.	0.000000	0.000000	0.000000	0.00000000	0.00000097	-0.00000002
7603901	43045.	0.000000	0.000000	0.000000	0.00000000	0.00000099	-0.00000002
7603901	43046.	-0.000001	0.000000	0.000000	0.00000000	0.00000101	-0.00000002
7603901	43047.	0.000000	0.000001	0.000000	0.00000000	0.00000102	-0.00000002
7603901	43048.	0.000000	0.000000	0.000000	0.00000000	0.00000104	-0.00000002
7603901	43049.	-0.000001	0.000000	0.000000	0.00000000	0.00000105	-0.00000001
7603901	43050.	0.000000	0.000001	0.000000	0.00000000	0.00000106	-0.00000002

EPOCH	LAGEOS		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
7603901	43051.	0.000000	0.000000	0.000000	0.00000000	0.00000108	-0.00000001
7603901	43052.	0.000000	0.000000	0.000000	0.00000000	0.00000109	-0.00000002
7603901	43053.	0.000000	0.000001	0.000000	0.00000000	0.00000111	-0.00000002
7603901	43054.	0.000000	0.000000	0.000000	0.00000000	0.00000113	-0.00000002
7603901	43055.	0.000000	0.000000	0.000000	0.00000000	0.00000115	-0.00000002
7603901	43056.	0.000000	0.000000	0.000000	0.00000000	0.00000116	-0.00000003
7603901	43057.	0.000000	0.000000	0.000000	0.00000000	0.00000118	-0.00000002
7603901	43058.	0.000000	0.000001	0.000000	0.00000000	0.00000119	-0.00000003
7603901	43059.	0.000000	0.000000	0.000000	0.00000000	0.00000121	-0.00000002
7603901	43060.	0.000000	0.000001	0.000000	0.00000000	0.00000122	-0.00000003
7603901	43061.	0.000000	0.000000	0.000000	0.00000000	0.00000124	-0.00000002
7603901	43062.	0.000000	0.000001	0.000000	0.00000000	0.00000126	-0.00000002
7603901	43063.	0.000000	0.000000	0.000000	0.00000000	0.00000128	-0.00000002
7603901	43064.	0.000000	0.000000	0.000000	0.00000000	0.00000129	-0.00000003
7603901	43065.	0.000000	0.000001	0.000000	0.00000000	0.00000131	-0.00000002
7603901	43066.	-0.000001	0.000000	0.000000	0.00000000	0.00000132	-0.00000002
7603901	43067.	0.000000	0.000001	0.000000	0.00000000	0.00000134	-0.00000002
7603901	43068.	0.000000	0.000000	0.000000	0.00000000	0.00000136	-0.00000003
7603901	43069.	0.000000	0.000000	0.000000	0.00000000	0.00000138	-0.00000002
7603901	43070.	0.000000	0.000000	0.000000	0.00000000	0.00000140	-0.00000002
7603901	43071.	-0.000001	0.000000	0.000000	0.00000000	0.00000142	-0.00000003
7603901	43072.	0.000000	0.000000	0.000000	0.00000000	0.00000143	-0.00000002
7603901	43073.	-0.000001	0.000001	0.000000	0.00000000	0.00000145	-0.00000003
7603901	43074.	0.000000	0.000000	0.000000	0.00000000	0.00000147	-0.00000003
7603901	43075.	0.000000	0.000000	0.000000	0.00000000	0.00000149	-0.00000002
7603901	43076.	0.000000	0.000000	0.000000	0.00000000	0.00000151	-0.00000002
7603901	43077.	0.000000	0.000001	0.000000	0.00000000	0.00000152	-0.00000002
7603901	43078.	0.000000	0.000000	0.000000	0.00000000	0.00000155	-0.00000002
7603901	43079.	0.000000	0.000000	0.000000	0.00000000	0.00000157	-0.00000002
7603901	43080.	0.000000	0.000000	0.000000	0.00000000	0.00000158	-0.00000002
7603901	43081.	0.000000	0.000001	0.000000	0.00000000	0.00000160	-0.00000003
7603901	43082.	-0.000001	0.000000	0.000000	0.00000000	0.00000162	-0.00000003
7603901	43083.	0.000000	0.000000	0.000000	0.00000000	0.00000164	-0.00000002
7603901	43084.	0.000000	0.000000	0.000000	0.00000000	0.00000165	-0.00000003
7603901	43085.	0.000000	0.000000	0.000000	0.00000000	0.00000168	-0.00000002

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43086.	-0.000001	0.000000	0.000000	0.00000170	-0.00000002
7603901	43087.	0.000000	0.000000	0.000000	0.00000171	-0.00000002
7603901	43088.	-0.000001	0.000000	0.000000	0.00000173	-0.00000003
7603901	43089.	-0.000001	0.000000	0.000000	0.00000175	-0.00000003
7603901	43090.	0.000000	0.000000	0.000000	0.00000177	-0.00000003
7603901	43091.	-0.000001	0.000001	0.000000	0.00000180	-0.00000003
7603901	43092.	0.000000	0.000000	0.000000	0.00000182	-0.00000003
7603901	43093.	-0.000001	0.000000	0.000000	0.00000184	-0.00000003
7603901	43094.	-0.000001	0.000000	0.000000	0.00000185	-0.00000003
7603901	43095.	-0.000001	0.000000	0.000000	0.00000188	-0.00000002
7603901	43096.	0.000000	0.000001	0.000000	0.00000189	-0.00000003
7603901	43097.	0.000000	0.000000	0.000000	0.00000192	-0.00000003
7603901	43098.	0.000000	0.000001	0.000000	0.00000194	-0.00000003
7603901	43099.	0.000000	0.000000	0.000000	0.00000196	-0.00000003
7603901	43100.	-0.000001	0.000000	0.000000	0.00000198	-0.00000003
7603901	43101.	0.000000	0.000000	0.000000	0.00000201	-0.00000002
7603901	43102.	0.000000	0.000000	0.000000	0.00000202	-0.00000003
7603901	43103.	0.000000	0.000000	0.000000	0.00000205	-0.00000003
7603901	43104.	-0.000001	0.000001	0.000000	0.00000206	-0.00000003
7603901	43105.	0.000000	0.000001	0.000000	0.00000209	-0.00000003
7603901	43106.	-0.000001	0.000000	0.000000	0.00000211	-0.00000002
7603901	43107.	0.000000	0.000000	0.000000	0.00000213	-0.00000003
7603901	43108.	0.000000	0.000001	0.000000	0.00000215	-0.00000003
7603901	43109.	-0.000001	0.000000	0.000000	0.00000218	-0.00000003
7603901	43110.	0.000000	0.000001	0.000000	0.00000220	-0.00000003
7603901	43111.	0.000000	0.000000	0.000000	0.00000222	-0.00000003
7603901	43112.	0.000000	0.000000	0.000000	0.00000224	-0.00000003
7603901	43113.	0.000000	0.000000	0.000000	0.00000227	-0.00000003
7603901	43114.	-0.000001	0.000001	0.000000	0.00000229	-0.00000003
7603901	43115.	-0.000001	0.000001	0.000000	0.00000231	-0.00000003
7603901	43116.	-0.000001	0.000000	0.000000	0.00000234	-0.00000003
7603901	43117.	0.000000	0.000000	0.000000	0.00000236	-0.00000003
7603901	43118.	0.000000	0.000000	0.000000	0.00000238	-0.00000003
7603901	43119.	0.000000	0.000000	0.000000	0.00000240	-0.00000003
7603901	43120.	0.000000	0.000000	0.000000	0.00000243	-0.00000003

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43121.	0.000000	0.000001	0.000000	0.00000000	0.00000245	-0.00000003
7603901	43122.	0.000000	0.000001	0.000000	0.00000000	0.00000248	-0.00000003
7603901	43123.	0.000000	0.000000	0.000000	0.00000000	0.00000250	-0.00000003
7603901	43124.	0.000000	0.000001	0.000000	0.00000000	0.00000252	-0.00000003
7603901	43125.	-0.000001	0.000000	0.000000	0.00000000	0.00000255	-0.00000003
7603901	43126.	0.000000	0.000001	0.000000	0.00000000	0.00000257	-0.00000003
7603901	43127.	0.000000	0.000000	0.000000	0.00000000	0.00000259	-0.00000003
7603901	43128.	0.000000	0.000000	0.000000	0.00000000	0.00000262	-0.00000003
7603901	43129.	0.000000	0.000000	0.000000	0.00000000	0.00000264	-0.00000003
7603901	43130.	0.000000	0.000001	0.000000	0.00000000	0.00000266	-0.00000003
7603901	43131.	0.000000	0.000000	0.000000	0.00000000	0.00000269	-0.00000004
7603901	43132.	0.000000	0.000001	0.000000	0.00000000	0.00000271	-0.00000003
7603901	43133.	0.000000	0.000001	0.000000	0.00000000	0.00000274	-0.00000003
7603901	43134.	-0.000001	0.000000	0.000000	0.00000000	0.00000277	-0.00000003
7603901	43135.	0.000000	0.000000	0.000000	0.00000000	0.00000279	-0.00000003
7603901	43136.	-0.000001	0.000001	0.000000	0.00000000	0.00000282	-0.00000003
7603901	43137.	0.000000	0.000001	0.000000	0.00000000	0.00000284	-0.00000003
7603901	43138.	-0.000001	0.000000	0.000000	0.00000000	0.00000286	-0.00000003
7603901	43139.	0.000000	0.000000	0.000000	0.00000000	0.00000289	-0.00000003
7603901	43140.	0.000000	0.000000	0.000000	0.00000000	0.00000291	-0.00000004
7603901	43141.	0.000000	0.000000	0.000000	0.00000000	0.00000294	-0.00000004
7603901	43142.	-0.000001	0.000000	0.000000	0.00000000	0.00000297	-0.00000004
7603901	43143.	-0.000001	0.000001	0.000000	0.00000000	0.00000300	-0.00000003
7603901	43144.	0.000000	0.000000	0.000000	0.00000000	0.00000302	-0.00000003
7603901	43145.	0.000000	0.000001	0.000000	0.00000000	0.00000305	-0.00000004
7603901	43146.	-0.000001	0.000000	0.000000	0.00000000	0.00000307	-0.00000003
7603901	43147.	0.000000	0.000000	0.000000	0.00000000	0.00000311	-0.00000003
7603901	43148.	0.000000	0.000001	0.000000	0.00000000	0.00000313	-0.00000003
7603901	43149.	-0.000001	0.000000	0.000000	0.00000000	0.00000316	-0.00000004
7603901	43150.	-0.000001	0.000000	0.000000	0.00000000	0.00000318	-0.00000004
7603901	43151.	0.000000	0.000001	0.000000	0.00000000	0.00000321	-0.00000003
7603901	43152.	0.000000	0.000000	0.000000	0.00000000	0.00000324	-0.00000004
7603901	43153.	0.000000	0.000001	0.000000	0.00000000	0.00000327	-0.00000003
7603901	43154.	-0.000001	0.000000	0.000000	0.00000000	0.00000329	-0.00000004
7603901	43155.	0.000000	0.000001	0.000000	0.00000000	0.00000332	-0.00000004

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43156.	0.000000	0.000000	0.000000	0.00000000	0.00000335	-0.00000003
7603901	43157.	0.000000	0.000001	0.000000	0.00000000	0.00000337	-0.00000004
7603901	43158.	-0.000001	0.000000	0.000000	0.00000000	0.00000340	-0.00000004
7603901	43159.	0.000000	0.000000	0.000000	-0.00000001	0.00000343	-0.00000004
7603901	43160.	0.000000	0.000001	0.000000	0.00000000	0.00000346	-0.00000004
7603901	43161.	0.000000	0.000001	0.000000	0.00000000	0.00000349	-0.00000004
7603901	43162.	0.000000	0.000001	0.000000	0.00000000	0.00000351	-0.00000004
7603901	43163.	0.000000	0.000001	0.000000	0.00000000	0.00000354	-0.00000003
7603901	43164.	0.000000	0.000000	0.000000	0.00000000	0.00000357	-0.00000004
7603901	43165.	0.000000	0.000000	0.000000	0.00000000	0.00000360	-0.00000003
7603901	43166.	-0.000001	0.000001	0.000000	0.00000000	0.00000363	-0.00000004
7603901	43167.	0.000000	0.000000	0.000000	0.00000000	0.00000366	-0.00000003
7603901	43168.	-0.000001	0.000001	0.000000	0.00000000	0.00000368	-0.00000004
7603901	43169.	-0.000001	0.000001	0.000000	0.00000000	0.00000371	-0.00000003
7603901	43170.	-0.000001	0.000001	0.000000	0.00000000	0.00000374	-0.00000003
7603901	43171.	-0.000001	0.000000	0.000000	0.00000000	0.00000377	-0.00000004
7603901	43172.	0.000000	0.000001	0.000000	0.00000000	0.00000380	-0.00000004
7603901	43173.	0.000000	0.000000	0.000000	0.00000000	0.00000383	-0.00000004
7603901	43174.	0.000000	0.000000	0.000000	0.00000000	0.00000386	-0.00000004
7603901	43175.	0.000000	0.000000	0.000000	0.00000000	0.00000389	-0.00000004
7603901	43176.	0.000000	0.000000	0.000000	0.00000000	0.00000392	-0.00000003
7603901	43177.	0.000000	0.000000	0.000000	0.00000000	0.00000395	-0.00000004
7603901	43178.	0.000000	0.000001	0.000000	0.00000000	0.00000398	-0.00000004
7603901	43179.	0.000000	0.000000	0.000000	0.00000000	0.00000401	-0.00000003
7603901	43180.	0.000000	0.000001	0.000000	0.00000000	0.00000404	-0.00000004
7603901	43181.	-0.000001	0.000000	0.000000	0.00000000	0.00000407	-0.00000004
7603901	43182.	0.000000	0.000001	0.000000	0.00000000	0.00000410	-0.00000004
7603901	43183.	0.000000	0.000001	0.000000	0.00000000	0.00000413	-0.00000004
7603901	43184.	0.000000	0.000000	0.000000	0.00000000	0.00000416	-0.00000004
7603901	43185.	0.000000	0.000000	0.000000	0.00000000	0.00000419	-0.00000004
7603901	43186.	0.000000	0.000001	0.000000	0.00000000	0.00000422	-0.00000004
7603901	43187.	0.000000	0.000000	0.000000	0.00000000	0.00000426	-0.00000004
7603901	43188.	0.000000	0.000000	0.000000	0.00000000	0.00000429	-0.00000004
7603901	43189.	-0.000001	0.000000	0.000000	-0.00000001	0.00000432	-0.00000004
7603901	43190.	0.000000	0.000001	0.000000	0.00000000	0.00000435	-0.00000005

EPOCH	LAGEOS		DRAG PERTURBATIONS		ECCENTRICITY	MEAN ANOMALY	A
	PERIGEE		NODE	INCLINATION			
7603901	43191.	-0.000001	0.000001	0.000000	0.00000000	0.00000439	-0.00000004
7603901	43192.	0.000000	0.000000	0.000000	0.00000000	0.00000441	-0.00000004
7603901	43193.	0.000000	0.000000	0.000000	0.00000000	0.00000445	-0.00000004
7603901	43194.	-0.000001	0.000000	0.000000	0.00000000	0.00000448	-0.00000004
7603901	43195.	0.000000	0.000000	0.000000	0.00000000	0.00000451	-0.00000004
7603901	43196.	-0.000001	0.000001	0.000000	0.00000000	0.00000455	-0.00000004
7603901	43197.	0.000000	0.000000	0.000000	0.00000000	0.00000457	-0.00000004
7603901	43198.	0.000000	0.000001	0.000000	0.00000000	0.00000460	-0.00000004
7603901	43199.	-0.000001	0.000001	0.000000	0.00000000	0.00000463	-0.00000005
7603901	43200.	0.000000	0.000001	0.000000	0.00000000	0.00000467	-0.00000004
7603901	43201.	-0.000001	0.000000	0.000000	0.00000000	0.00000470	-0.00000004
7603901	43202.	-0.000001	0.000000	0.000000	0.00000000	0.00000473	-0.00000004
7603901	43203.	0.000000	0.000001	0.000000	0.00000000	0.00000477	-0.00000004
7603901	43204.	0.000000	0.000000	0.000000	0.00000000	0.00000481	-0.00000004
7603901	43205.	0.000000	0.000000	0.000000	0.00000000	0.00000483	-0.00000004
7603901	43206.	-0.000001	0.000001	0.000000	0.00000000	0.00000487	-0.00000004
7603901	43207.	0.000000	0.000000	0.000000	0.00000000	0.00000491	-0.00000004
7603901	43208.	0.000000	0.000001	0.000000	0.00000000	0.00000494	-0.00000004
7603901	43209.	0.000000	0.000000	0.000000	0.00000000	0.00000496	-0.00000005
7603901	43210.	-0.000001	0.000000	0.000000	0.00000000	0.00000500	-0.00000004
7603901	43211.	-0.000001	0.000001	0.000000	0.00000000	0.00000504	-0.00000004
7603901	43212.	-0.000001	0.000001	0.000000	0.00000000	0.00000507	-0.00000004
7603901	43213.	-0.000001	0.000001	0.000000	0.00000000	0.00000511	-0.00000005
7603901	43214.	0.000000	0.000001	0.000000	0.00000000	0.00000514	-0.00000005
7603901	43215.	0.000000	0.000001	0.000000	0.00000000	0.00000517	-0.00000005
7603901	43216.	0.000000	0.000000	0.000000	0.00000000	0.00000521	-0.00000005
7603901	43217.	0.000000	0.000001	0.000000	0.00000000	0.00000525	-0.00000004
7603901	43218.	-0.000001	0.000001	0.000000	0.00000000	0.00000527	-0.00000005
7603901	43219.	-0.000001	0.000001	0.000000	0.00000000	0.00000532	-0.00000004
7603901	43220.	-0.000001	0.000000	0.000000	0.00000000	0.00000535	-0.00000004
7603901	43221.	0.000000	0.000000	0.000000	0.00000000	0.00000538	-0.00000005
7603901	43222.	-0.000001	0.000001	0.000000	0.00000000	0.00000542	-0.00000004
7603901	43223.	-0.000001	0.000001	0.000000	0.00000000	0.00000545	-0.00000005
7603901	43224.	0.000000	0.000001	0.000000	0.00000000	0.00000549	-0.00000005
7603901	43225.	0.000000	0.000000	0.000000	0.00000000	0.00000552	-0.00000005

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43226.	0.000000	0.000001	0.000000	0.00000000	0.00000556	-0.00000004
7603901	43227.	-0.000001	0.000000	0.000000	0.00000000	0.00000560	-0.00000004
7603901	43228.	0.000000	0.000001	0.000000	0.00000000	0.00000564	-0.00000005
7603901	43229.	0.000000	0.000001	0.000000	0.00000000	0.00000567	-0.00000004
7603901	43230.	-0.000001	0.000001	0.000000	0.00000000	0.00000570	-0.00000005
7603901	43231.	-0.000001	0.000001	0.000000	0.00000000	0.00000574	-0.00000005
7603901	43232.	-0.000001	0.000001	0.000000	0.00000000	0.00000578	-0.00000005
7603901	43233.	0.000000	0.000001	0.000000	0.00000000	0.00000582	-0.00000005
7603901	43234.	0.000000	0.000001	0.000000	0.00000000	0.00000585	-0.00000005
7603901	43235.	-0.000001	0.000001	0.000000	0.00000000	0.00000589	-0.00000005
7603901	43236.	0.000000	0.000000	0.000000	0.00000000	0.00000592	-0.00000004
7603901	43237.	-0.000001	0.000001	0.000000	0.00000000	0.00000596	-0.00000005
7603901	43238.	0.000000	0.000000	0.000000	0.00000000	0.00000599	-0.00000004
7603901	43239.	0.000000	0.000001	0.000000	0.00000000	0.00000604	-0.00000005
7603901	43240.	-0.000001	0.000001	0.000000	0.00000000	0.00000608	-0.00000004
7603901	43241.	-0.000001	0.000000	0.000000	0.00000000	0.00000611	-0.00000005
7603901	43242.	-0.000001	0.000001	0.000000	0.00000000	0.00000614	-0.00000005
7603901	43243.	-0.000001	0.000001	0.000000	0.00000000	0.00000619	-0.00000005
7603901	43244.	0.000000	0.000001	0.000000	0.00000000	0.00000622	-0.00000005
7603901	43245.	-0.000001	0.000001	0.000000	0.00000000	0.00000626	-0.00000005
7603901	43246.	-0.000001	0.000001	0.000000	0.00000000	0.00000630	-0.00000005
7603901	43247.	-0.000001	0.000001	0.000000	0.00000000	0.00000634	-0.00000005
7603901	43248.	-0.000001	0.000001	0.000000	0.00000000	0.00000638	-0.00000005
7603901	43249.	-0.000001	0.000000	0.000000	0.00000000	0.00000642	-0.00000005
7603901	43250.	-0.000001	0.000001	0.000000	0.00000000	0.00000646	-0.00000005
7603901	43251.	0.000000	0.000001	0.000000	0.00000000	0.00000649	-0.00000005
7603901	43252.	0.000000	0.000000	0.000000	0.00000000	0.00000652	-0.00000005
7603901	43253.	-0.000001	0.000001	0.000000	0.00000000	0.00000657	-0.00000004
7603901	43254.	0.000000	0.000000	0.000000	0.00000000	0.00000661	-0.00000005
7603901	43255.	0.000000	0.000000	0.000000	0.00000000	0.00000664	-0.00000005
7603901	43256.	-0.000001	0.000001	0.000000	0.00000000	0.00000669	-0.00000005
7603901	43257.	-0.000001	0.000001	0.000000	0.00000000	0.00000672	-0.00000006
7603901	43258.	0.000000	0.000001	0.000000	0.00000000	0.00000676	-0.00000005
7603901	43259.	0.000000	0.000000	0.000000	0.00000000	0.00000680	-0.00000005
7603901	43260.	-0.000001	0.000001	0.000000	0.00000000	0.00000684	-0.00000006

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43261.	-0.000001	0.000001	0.000000	0.00000000	0.00000688	-0.00000005
7603901	43262.	0.000000	0.000000	0.000000	0.00000000	0.00000692	-0.00000005
7603901	43263.	0.000000	0.000000	0.000000	0.00000000	0.00000696	-0.00000005
7603901	43264.	0.000000	0.000001	0.000000	0.00000000	0.00000700	-0.00000005
7603901	43265.	0.000000	0.000001	0.000000	0.00000000	0.00000704	-0.00000005
7603901	43266.	0.000000	0.000001	0.000000	0.00000000	0.00000708	-0.00000005
7603901	43267.	0.000000	0.000000	0.000000	0.00000000	0.00000713	-0.00000005
7603901	43268.	-0.000001	0.000001	0.000000	0.00000000	0.00000716	-0.00000005
7603901	43269.	-0.000001	0.000001	0.000000	0.00000000	0.00000721	-0.00000005
7603901	43270.	-0.000001	0.000001	0.000000	0.00000000	0.00000724	-0.00000005
7603901	43271.	-0.000001	0.000001	0.000000	0.00000000	0.00000728	-0.00000005
7603901	43272.	0.000000	0.000001	0.000000	0.00000000	0.00000733	-0.00000006
7603901	43273.	-0.000001	0.000001	0.000000	0.00000000	0.00000736	-0.00000005
7603901	43274.	-0.000001	0.000001	0.000000	0.00000000	0.00000741	-0.00000006
7603901	43275.	0.000000	0.000001	0.000000	0.00000000	0.00000745	-0.00000005
7603901	43276.	-0.000001	0.000000	0.000000	0.00000000	0.00000749	-0.00000005
7603901	43277.	0.000000	0.000001	0.000000	0.00000000	0.00000753	-0.00000006
7603901	43278.	-0.000001	0.000001	0.000000	0.00000000	0.00000757	-0.00000005
7603901	43279.	0.000000	0.000001	0.000000	0.00000000	0.00000762	-0.00000006
7603901	43280.	0.000000	0.000001	0.000000	0.00000000	0.00000766	-0.00000006
7603901	43281.	-0.000001	0.000001	0.000000	0.00000000	0.00000770	-0.00000005
7603901	43282.	-0.000001	0.000001	0.000000	0.00000000	0.00000774	-0.00000005
7603901	43283.	0.000000	0.000001	0.000000	0.00000000	0.00000778	-0.00000006
7603901	43284.	-0.000001	0.000001	0.000000	0.00000000	0.00000783	-0.00000005
7603901	43285.	-0.000001	0.000001	0.000000	0.00000000	0.00000787	-0.00000005
7603901	43286.	-0.000001	0.000001	0.000000	0.00000000	0.00000791	-0.00000006
7603901	43287.	-0.000001	0.000001	0.000000	0.00000000	0.00000795	-0.00000005
7603901	43288.	-0.000001	0.000001	0.000000	0.00000000	0.00000800	-0.00000006
7603901	43289.	-0.000001	0.000001	0.000000	0.00000000	0.00000804	-0.00000006
7603901	43290.	-0.000001	0.000001	0.000000	0.00000000	0.00000809	-0.00000005
7603901	43291.	-0.000001	0.000001	0.000000	0.00000000	0.00000813	-0.00000005
7603901	43292.	-0.000001	0.000001	0.000000	0.00000000	0.00000817	-0.00000005
7603901	43293.	-0.000001	0.000001	0.000000	0.00000000	0.00000822	-0.00000006
7603901	43294.	-0.000001	0.000001	0.000000	0.00000000	0.00000826	-0.00000005
7603901	43295.	0.000000	0.000001	0.000000	0.00000000	0.00000831	-0.00000006

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43296.	0.000000	0.000001	0.000000	0.00000000	0.00000835	-0.00000006
7603901	43297.	-0.000001	0.000001	0.000000	0.00000000	0.00000839	-0.00000006
7603901	43298.	0.000000	0.000001	0.000000	0.00000000	0.00000844	-0.00000005
7603901	43299.	-0.000001	0.000001	0.000000	0.00000000	0.00000848	-0.00000006
7603901	43300.	-0.000001	0.000001	0.000000	0.00000000	0.00000852	-0.00000006
7603901	43301.	-0.000001	0.000001	0.000000	0.00000000	0.00000857	-0.00000006
7603901	43302.	-0.000001	0.000001	0.000000	0.00000000	0.00000862	-0.00000006
7603901	43303.	-0.000001	0.000001	0.000000	0.00000000	0.00000866	-0.00000006
7603901	43304.	-0.000001	0.000001	0.000000	0.00000000	0.00000870	-0.00000006
7603901	43305.	0.000000	0.000001	0.000000	0.00000000	0.00000875	-0.00000006
7603901	43306.	0.000000	0.000001	0.000000	0.00000000	0.00000879	-0.00000006
7603901	43307.	-0.000001	0.000001	0.000000	0.00000000	0.00000883	-0.00000006
7603901	43308.	-0.000001	0.000001	0.000000	0.00000000	0.00000888	-0.00000005
7603901	43309.	-0.000001	0.000001	0.000000	0.00000000	0.00000893	-0.00000006
7603901	43310.	-0.000001	0.000001	0.000000	0.00000000	0.00000897	-0.00000006
7603901	43311.	0.000000	0.000001	0.000000	0.00000000	0.00000902	-0.00000006
7603901	43312.	-0.000001	0.000001	0.000000	0.00000000	0.00000907	-0.00000006
7603901	43313.	-0.000001	0.000001	0.000000	0.00000000	0.00000911	-0.00000006
7603901	43314.	0.000000	0.000001	0.000000	0.00000000	0.00000915	-0.00000006
7603901	43315.	-0.000001	0.000001	0.000000	0.00000000	0.00000920	-0.00000006
7603901	43316.	-0.000001	0.000001	0.000000	0.00000000	0.00000925	-0.00000006
7603901	43317.	-0.000001	0.000002	0.000000	0.00000000	0.00000930	-0.00000006
7603901	43318.	-0.000001	0.000001	0.000000	0.00000000	0.00000934	-0.00000006
7603901	43319.	-0.000001	0.000001	0.000000	0.00000000	0.00000939	-0.00000006
7603901	43320.	-0.000001	0.000001	0.000000	0.00000000	0.00000944	-0.00000006
7603901	43321.	-0.000001	0.000001	0.000000	0.00000000	0.00000948	-0.00000006
7603901	43322.	-0.000001	0.000001	0.000000	0.00000000	0.00000953	-0.00000006
7603901	43323.	-0.000001	0.000001	0.000000	0.00000000	0.00000958	-0.00000006
7603901	43324.	-0.000001	0.000001	0.000000	0.00000000	0.00000962	-0.00000006
7603901	43325.	-0.000001	0.000001	0.000000	0.00000000	0.00000967	-0.00000006
7603901	43326.	-0.000001	0.000001	0.000000	0.00000000	0.00000971	-0.00000006
7603901	43327.	-0.000001	0.000001	0.000000	0.00000000	0.00000976	-0.00000006
7603901	43328.	-0.000001	0.000002	0.000000	0.00000000	0.00000981	-0.00000006
7603901	43329.	-0.000001	0.000002	0.000000	0.00000000	0.00000986	-0.00000006
7603901	43330.	-0.000001	0.000002	0.000000	0.00000000	0.00000991	-0.00000006

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43331.	-0.000001	0.000001	0.000000	0.00000000	0.00000995	-0.00000006
7603901	43332.	0.000000	0.000001	0.000000	0.00000000	0.00001000	-0.00000006
7603901	43333.	0.000000	0.000001	0.000000	0.00000000	0.00001005	-0.00000007
7603901	43334.	-0.000001	0.000002	0.000000	0.00000000	0.00001010	-0.00000006
7603901	43335.	-0.000001	0.000001	0.000000	0.00000000	0.00001015	-0.00000006
7603901	43336.	-0.000001	0.000002	0.000000	0.00000000	0.00001019	-0.00000006
7603901	43337.	-0.000001	0.000001	0.000000	0.00000000	0.00001024	-0.00000006
7603901	43338.	-0.000001	0.000001	0.000000	0.00000000	0.00001030	-0.00000007
7603901	43339.	-0.000001	0.000001	0.000000	0.00000000	0.00001034	-0.00000006
7603901	43340.	-0.000001	0.000002	0.000000	0.00000000	0.00001040	-0.00000007
7603901	43341.	0.000000	0.000001	0.000000	0.00000000	0.00001044	-0.00000007
7603901	43342.	-0.000001	0.000002	0.000000	0.00000000	0.00001049	-0.00000006
7603901	43343.	-0.000001	0.000001	0.000000	0.00000000	0.00001054	-0.00000007
7603901	43344.	-0.000001	0.000002	0.000000	0.00000000	0.00001058	-0.00000006
7603901	43345.	0.000000	0.000002	0.000000	0.00000000	0.00001063	-0.00000007
7603901	43346.	0.000000	0.000002	0.000000	0.00000000	0.00001069	-0.00000007
7603901	43347.	-0.000001	0.000001	0.000000	0.00000000	0.00001073	-0.00000007
7603901	43348.	0.000000	0.000001	0.000000	0.00000000	0.00001079	-0.00000006
7603901	43349.	-0.000001	0.000001	0.000000	0.00000000	0.00001084	-0.00000007
7603901	43350.	0.000000	0.000001	0.000000	0.00000000	0.00001089	-0.00000006
7603901	43351.	-0.000001	0.000001	0.000000	0.00000000	0.00001094	-0.00000006
7603901	43352.	-0.000001	0.000002	0.000000	0.00000000	0.00001099	-0.00000007
7603901	43353.	0.000000	0.000002	0.000000	0.00000000	0.00001104	-0.00000006
7603901	43354.	-0.000001	0.000002	0.000000	0.00000000	0.00001109	-0.00000007
7603901	43355.	-0.000001	0.000001	0.000000	0.00000000	0.00001114	-0.00000007
7603901	43356.	-0.000001	0.000002	0.000000	0.00000000	0.00001119	-0.00000007
7603901	43357.	-0.000001	0.000001	0.000000	0.00000000	0.00001124	-0.00000007
7603901	43358.	-0.000001	0.000001	0.000000	0.00000000	0.00001130	-0.00000007
7603901	43359.	-0.000001	0.000001	0.000000	0.00000000	0.00001135	-0.00000006
7603901	43360.	-0.000001	0.000001	0.000000	0.00000000	0.00001140	-0.00000006
7603901	43361.	-0.000001	0.000002	0.000000	0.00000000	0.00001144	-0.00000007
7603901	43362.	-0.000001	0.000002	0.000000	0.00000000	0.00001150	-0.00000006
7603901	43363.	-0.000001	0.000002	0.000000	0.00000000	0.00001155	-0.00000006
7603901	43364.	0.000000	0.000001	0.000000	0.00000000	0.00001161	-0.00000007
7603901	43365.	-0.000001	0.000001	0.000000	0.00000000	0.00001165	-0.00000007

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43366.	-0.000001	0.000001	0.000000	0.00000000	0.00001170	-0.00000007
7603901	43367.	0.000000	0.000001	0.000000	0.00000000	0.00001175	-0.00000007
7603901	43368.	-0.000001	0.000001	0.000000	0.00000000	0.00001181	-0.00000007
7603901	43369.	-0.000001	0.000002	0.000000	0.00000000	0.00001186	-0.00000007
7603901	43370.	-0.000001	0.000002	0.000000	0.00000000	0.00001191	-0.00000007
7603901	43371.	-0.000001	0.000001	0.000000	0.00000000	0.00001197	-0.00000007
7603901	43372.	-0.000001	0.000002	0.000000	0.00000000	0.00001202	-0.00000007
7603901	43373.	-0.000001	0.000002	0.000000	0.00000000	0.00001208	-0.00000007
7603901	43374.	-0.000001	0.000002	0.000000	0.00000000	0.00001213	-0.00000007
7603901	43375.	-0.000001	0.000002	0.000000	0.00000000	0.00001218	-0.00000007
7603901	43376.	-0.000001	0.000002	0.000000	0.00000000	0.00001224	-0.00000007
7603901	43377.	-0.000001	0.000001	0.000000	0.00000000	0.00001229	-0.00000007
7603901	43378.	-0.000001	0.000001	0.000000	0.00000000	0.00001234	-0.00000007
7603901	43379.	-0.000001	0.000002	0.000000	0.00000000	0.00001240	-0.00000007
7603901	43380.	-0.000001	0.000002	0.000000	0.00000000	0.00001245	-0.00000007
7603901	43381.	-0.000001	0.000001	0.000000	0.00000000	0.00001250	-0.00000007
7603901	43382.	-0.000001	0.000001	0.000000	0.00000000	0.00001256	-0.00000007
7603901	43383.	-0.000001	0.000001	0.000000	0.00000000	0.00001261	-0.00000007
7603901	43384.	-0.000001	0.000001	0.000000	0.00000000	0.00001267	-0.00000006
7603901	43385.	-0.000001	0.000002	0.000000	0.00000000	0.00001272	-0.00000007
7603901	43386.	-0.000001	0.000001	0.000000	0.00000000	0.00001277	-0.00000007
7603901	43387.	-0.000001	0.000002	0.000000	0.00000000	0.00001283	-0.00000007
7603901	43388.	-0.000001	0.000002	0.000000	0.00000000	0.00001288	-0.00000007
7603901	43389.	-0.000001	0.000001	0.000000	0.00000000	0.00001294	-0.00000007
7603901	43390.	-0.000001	0.000001	0.000000	0.00000000	0.00001300	-0.00000007
7603901	43391.	-0.000001	0.000002	0.000000	0.00000000	0.00001305	-0.00000007
7603901	43392.	-0.000001	0.000002	0.000000	0.00000000	0.00001310	-0.00000007
7603901	43393.	-0.000001	0.000002	0.000000	0.00000000	0.00001316	-0.00000007
7603901	43394.	-0.000001	0.000002	0.000000	0.00000000	0.00001322	-0.00000007
7603901	43395.	-0.000001	0.000002	0.000000	0.00000000	0.00001327	-0.00000007
7603901	43396.	-0.000001	0.000002	0.000000	0.00000000	0.00001333	-0.00000007
7603901	43397.	-0.000001	0.000002	0.000000	0.00000000	0.00001338	-0.00000007
7603901	43398.	-0.000001	0.000002	0.000000	0.00000000	0.00001344	-0.00000008
7603901	43399.	-0.000001	0.000001	0.000000	0.00000000	0.00001349	-0.00000007
7603901	43400.	-0.000001	0.000002	0.000000	0.00000000	0.00001355	-0.00000007

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43401.	-0.000001	0.000002	0.000000	0.00000000	0.00001361	-0.00000008
7603901	43402.	-0.000001	0.000001	0.000000	0.00000000	0.00001366	-0.00000007
7603901	43403.	-0.000001	0.000001	0.000000	0.00000000	0.00001372	-0.00000008
7603901	43404.	-0.000001	0.000002	0.000000	0.00000000	0.00001378	-0.00000007
7603901	43405.	-0.000001	0.000002	0.000000	0.00000000	0.00001384	-0.00000007
7603901	43406.	-0.000001	0.000002	0.000000	0.00000000	0.00001389	-0.00000007
7603901	43407.	-0.000001	0.000001	0.000000	0.00000000	0.00001395	-0.00000008
7603901	43408.	-0.000001	0.000002	0.000000	0.00000000	0.00001400	-0.00000008
7603901	43409.	-0.000001	0.000002	0.000000	0.00000000	0.00001407	-0.00000007
7603901	43410.	-0.000002	0.000002	0.000000	0.00000000	0.00001412	-0.00000007
7603901	43411.	-0.000001	0.000002	0.000000	0.00000000	0.00001418	-0.00000007
7603901	43412.	-0.000001	0.000002	0.000000	0.00000000	0.00001424	-0.00000008
7603901	43413.	-0.000002	0.000002	0.000000	0.00000000	0.00001429	-0.00000007
7603901	43414.	-0.000001	0.000002	0.000000	0.00000000	0.00001435	-0.00000008
7603901	43415.	-0.000001	0.000001	0.000000	0.00000000	0.00001441	-0.00000007
7603901	43416.	-0.000001	0.000002	0.000000	0.00000000	0.00001447	-0.00000007
7603901	43417.	-0.000001	0.000001	0.000000	0.00000000	0.00001453	-0.00000007
7603901	43418.	-0.000001	0.000002	0.000000	0.00000000	0.00001458	-0.00000007
7603901	43419.	-0.000001	0.000002	0.000000	0.00000000	0.00001464	-0.00000007
7603901	43420.	-0.000002	0.000001	0.000000	0.00000000	0.00001471	-0.00000007
7603901	43421.	-0.000001	0.000001	0.000000	0.00000000	0.00001476	-0.00000008
7603901	43422.	-0.000001	0.000002	0.000000	0.00000000	0.00001482	-0.00000008
7603901	43423.	-0.000001	0.000002	0.000000	0.00000000	0.00001488	-0.00000007
7603901	43424.	-0.000001	0.000001	0.000000	0.00000000	0.00001494	-0.00000008
7603901	43425.	-0.000001	0.000002	0.000000	0.00000000	0.00001500	-0.00000008
7603901	43426.	-0.000001	0.000002	0.000000	0.00000000	0.00001506	-0.00000007
7603901	43427.	-0.000001	0.000002	0.000000	0.00000000	0.00001512	-0.00000008
7603901	43428.	-0.000001	0.000002	0.000000	0.00000000	0.00001518	-0.00000008
7603901	43429.	-0.000001	0.000002	0.000000	0.00000000	0.00001524	-0.00000008
7603901	43430.	-0.000001	0.000002	0.000000	0.00000000	0.00001530	-0.00000008
7603901	43431.	-0.000001	0.000002	0.000000	0.00000000	0.00001536	-0.00000008
7603901	43432.	-0.000001	0.000002	0.000000	0.00000000	0.00001542	-0.00000008
7603901	43433.	-0.000001	0.000002	0.000000	0.00000000	0.00001548	-0.00000007
7603901	43434.	-0.000001	0.000002	0.000000	0.00000000	0.00001554	-0.00000008
7603901	43435.	-0.000001	0.000002	0.000000	0.00000000	0.00001560	-0.00000008

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43436.	-0.000001	0.000002	0.000000	0.00000000	0.00001566	-0.00000008
7603901	43437.	-0.000002	0.000002	0.000000	0.00000000	0.00001572	-0.00000008
7603901	43438.	-0.000001	0.000002	0.000000	0.00000000	0.00001578	-0.00000007
7603901	43439.	-0.000001	0.000002	0.000000	0.00000000	0.00001585	-0.00000008
7603901	43440.	-0.000002	0.000002	0.000000	0.00000000	0.00001591	-0.00000008
7603901	43441.	-0.000001	0.000002	0.000000	0.00000000	0.00001597	-0.00000008
7603901	43442.	-0.000002	0.000002	0.000000	0.00000000	0.00001603	-0.00000008
7603901	43443.	-0.000001	0.000002	0.000000	0.00000000	0.00001609	-0.00000008
7603901	43444.	-0.000001	0.000002	0.000000	0.00000000	0.00001616	-0.00000008
7603901	43445.	-0.000001	0.000002	0.000000	0.00000000	0.00001622	-0.00000008
7603901	43446.	-0.000001	0.000002	0.000000	0.00000000	0.00001627	-0.00000008
7603901	43447.	-0.000001	0.000002	0.000000	0.00000000	0.00001634	-0.00000008
7603901	43448.	-0.000001	0.000002	0.000000	0.00000000	0.00001640	-0.00000008
7603901	43449.	-0.000001	0.000002	0.000000	0.00000000	0.00001647	-0.00000008
7603901	43450.	-0.000001	0.000002	0.000000	0.00000000	0.00001653	-0.00000008
7603901	43451.	-0.000001	0.000002	0.000000	0.00000000	0.00001659	-0.00000008
7603901	43452.	-0.000001	0.000002	0.000000	0.00000000	0.00001665	-0.00000008
7603901	43453.	-0.000001	0.000002	0.000000	0.00000000	0.00001672	-0.00000008
7603901	43454.	-0.000002	0.000002	0.000000	0.00000000	0.00001678	-0.00000008
7603901	43455.	-0.000001	0.000002	0.000000	0.00000000	0.00001684	-0.00000008
7603901	43456.	-0.000001	0.000002	0.000000	0.00000000	0.00001691	-0.00000008
7603901	43457.	-0.000001	0.000002	0.000000	0.00000000	0.00001697	-0.00000008
7603901	43458.	-0.000002	0.000002	0.000000	-0.00000001	0.00001704	-0.00000008
7603901	43459.	-0.000001	0.000003	0.000000	0.00000000	0.00001710	-0.00000008
7603901	43460.	-0.000001	0.000002	0.000000	0.00000000	0.00001716	-0.00000008
7603901	43461.	-0.000001	0.000003	0.000000	0.00000000	0.00001722	-0.00000008
7603901	43462.	-0.000001	0.000002	0.000000	0.00000000	0.00001728	-0.00000008
7603901	43463.	-0.000001	0.000002	0.000000	0.00000000	0.00001735	-0.00000008
7603901	43464.	-0.000001	0.000002	0.000000	0.00000000	0.00001741	-0.00000008
7603901	43465.	-0.000002	0.000002	0.000000	0.00000000	0.00001748	-0.00000008
7603901	43466.	-0.000001	0.000002	0.000000	0.00000000	0.00001755	-0.00000009
7603901	43467.	-0.000001	0.000002	0.000000	0.00000000	0.00001761	-0.00000009
7603901	43468.	-0.000001	0.000002	0.000000	0.00000000	0.00001767	-0.00000008
7603901	43469.	-0.000002	0.000002	0.000000	0.00000000	0.00001774	-0.00000009
7603901	43470.	-0.000002	0.000002	0.000000	0.00000000	0.00001780	-0.00000008

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43471.	-0.000002	0.000003	0.000000	0.00000000	0.00001787	-0.00000009
7603901	43472.	-0.000002	0.000002	0.000000	0.00000000	0.00001793	-0.00000008
7603901	43473.	-0.000002	0.000002	0.000000	0.00000000	0.00001800	-0.00000008
7603901	43474.	-0.000002	0.000002	0.000000	0.00000000	0.00001806	-0.00000009
7603901	43475.	-0.000001	0.000002	0.000000	0.00000000	0.00001813	-0.00000009
7603901	43476.	-0.000001	0.000002	0.000000	0.00000000	0.00001820	-0.00000008
7603901	43477.	-0.000001	0.000002	0.000000	0.00000000	0.00001827	-0.00000008
7603901	43478.	-0.000001	0.000003	0.000000	0.00000000	0.00001832	-0.00000008
7603901	43479.	-0.000001	0.000002	0.000000	0.00000000	0.00001839	-0.00000009
7603901	43480.	-0.000002	0.000002	0.000000	0.00000000	0.00001846	-0.00000008
7603901	43481.	-0.000002	0.000002	0.000000	0.00000000	0.00001853	-0.00000008
7603901	43482.	-0.000001	0.000003	0.000000	0.00000000	0.00001859	-0.00000008
7603901	43483.	-0.000001	0.000003	0.000000	0.00000000	0.00001866	-0.00000008
7603901	43484.	-0.000002	0.000002	0.000000	0.00000000	0.00001873	-0.00000009
7603901	43485.	-0.000002	0.000003	0.000000	0.00000000	0.00001880	-0.00000009
7603901	43486.	-0.000001	0.000002	0.000000	0.00000000	0.00001886	-0.00000009
7603901	43487.	-0.000001	0.000002	0.000000	0.00000000	0.00001893	-0.00000009
7603901	43488.	-0.000001	0.000002	0.000000	0.00000000	0.00001900	-0.00000008
7603901	43489.	-0.000002	0.000002	0.000000	0.00000000	0.00001907	-0.00000009
7603901	43490.	-0.000002	0.000002	0.000000	0.00000000	0.00001914	-0.00000009
7603901	43491.	-0.000002	0.000003	0.000000	0.00000000	0.00001920	-0.00000009
7603901	43492.	-0.000002	0.000003	0.000000	0.00000000	0.00001926	-0.00000009
7603901	43493.	-0.000001	0.000002	0.000000	0.00000000	0.00001933	-0.00000009
7603901	43494.	-0.000001	0.000002	0.000000	0.00000000	0.00001940	-0.00000008
7603901	43495.	-0.000001	0.000003	0.000000	0.00000000	0.00001947	-0.00000009
7603901	43496.	-0.000002	0.000002	0.000000	0.00000000	0.00001954	-0.00000009
7603901	43497.	-0.000001	0.000003	0.000000	0.00000000	0.00001961	-0.00000009
7603901	43498.	-0.000002	0.000003	-0.000001	0.00000000	0.00001968	-0.00000008
7603901	43499.	-0.000002	0.000002	0.000000	0.00000000	0.00001975	-0.00000009
7603901	43500.	-0.000001	0.000003	0.000000	0.00000000	0.00001982	-0.00000009
7603901	43501.	-0.000001	0.000002	0.000000	0.00000000	0.00001989	-0.00000009
7603901	43502.	-0.000002	0.000003	0.000000	0.00000000	0.00001995	-0.00000009
7603901	43503.	-0.000001	0.000003	0.000000	0.00000000	0.00002002	-0.00000009
7603901	43504.	-0.000001	0.000003	0.000000	0.00000000	0.00002009	-0.00000009
7603901	43505.	-0.000001	0.000002	0.000000	0.00000000	0.00002016	-0.00000009

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43506.	-0.000001	0.000002	0.000000	0.00000000	0.00002023	-0.00000009
7603901	43507.	-0.000002	0.000003	0.000000	0.00000000	0.00002030	-0.00000009
7603901	43508.	-0.000002	0.000003	0.000000	0.00000000	0.00002036	-0.00000009
7603901	43509.	-0.000002	0.000002	0.000000	0.00000000	0.00002043	-0.00000009
7603901	43510.	-0.000001	0.000003	0.000000	0.00000000	0.00002051	-0.00000009
7603901	43511.	-0.000001	0.000003	0.000000	0.00000000	0.00002058	-0.00000009
7603901	43512.	-0.000002	0.000003	0.000000	0.00000000	0.00002065	-0.00000009
7603901	43513.	-0.000002	0.000002	0.000000	0.00000000	0.00002071	-0.00000009
7603901	43514.	-0.000002	0.000002	0.000000	0.00000000	0.00002079	-0.00000009
7603901	43515.	-0.000001	0.000002	0.000000	0.00000000	0.00002086	-0.00000009
7603901	43516.	-0.000001	0.000003	0.000000	0.00000000	0.00002093	-0.00000009
7603901	43517.	-0.000001	0.000002	0.000000	0.00000000	0.00002100	-0.00000009
7603901	43518.	-0.000002	0.000002	0.000000	0.00000000	0.00002107	-0.00000009
7603901	43519.	-0.000002	0.000002	0.000000	0.00000000	0.00002114	-0.00000009
7603901	43520.	-0.000001	0.000003	0.000000	0.00000000	0.00002122	-0.00000009
7603901	43521.	-0.000001	0.000003	0.000000	0.00000000	0.00002128	-0.00000009
7603901	43522.	-0.000002	0.000003	0.000000	0.00000000	0.00002136	-0.00000009
7603901	43523.	-0.000002	0.000003	0.000000	0.00000000	0.00002143	-0.00000009
7603901	43524.	-0.000001	0.000002	0.000000	0.00000000	0.00002150	-0.00000009
7603901	43525.	-0.000002	0.000003	0.000000	0.00000000	0.00002157	-0.00000010
7603901	43526.	-0.000001	0.000002	0.000000	0.00000000	0.00002164	-0.00000009
7603901	43527.	-0.000002	0.000002	0.000000	0.00000000	0.00002171	-0.00000010
7603901	43528.	-0.000002	0.000003	0.000000	0.00000000	0.00002179	-0.00000009
7603901	43529.	-0.000002	0.000003	0.000000	0.00000000	0.00002186	-0.00000010
7603901	43530.	-0.000002	0.000002	0.000000	0.00000000	0.00002193	-0.00000009
7603901	43531.	-0.000002	0.000003	0.000000	0.00000000	0.00002201	-0.00000009
7603901	43532.	-0.000001	0.000003	0.000000	0.00000000	0.00002208	-0.00000009
7603901	43533.	-0.000002	0.000003	0.000000	0.00000000	0.00002215	-0.00000009
7603901	43534.	-0.000001	0.000003	0.000000	0.00000000	0.00002222	-0.00000010
7603901	43535.	-0.000002	0.000002	0.000000	0.00000000	0.00002230	-0.00000009
7603901	43536.	-0.000002	0.000002	0.000000	0.00000000	0.00002237	-0.00000009
7603901	43537.	-0.000002	0.000003	0.000000	0.00000000	0.00002245	-0.00000010
7603901	43538.	-0.000002	0.000003	-0.000001	0.00000000	0.00002252	-0.00000010
7603901	43539.	-0.000002	0.000003	0.000000	0.00000000	0.00002259	-0.00000009
7603901	43540.	-0.000002	0.000003	0.000000	0.00000000	0.00002267	-0.00000010

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43541.	-0.000001	0.000002	0.000000	0.00000000	0.00002274	-0.00000009
7603901	43542.	-0.000002	0.000003	0.000000	0.00000000	0.00002282	-0.00000010
7603901	43543.	-0.000001	0.000002	0.000000	0.00000000	0.00002289	-0.00000010
7603901	43544.	-0.000001	0.000002	0.000000	0.00000000	0.00002297	-0.00000010
7603901	43545.	-0.000002	0.000003	0.000000	0.00000000	0.00002303	-0.00000010
7603901	43546.	-0.000001	0.000003	0.000000	0.00000000	0.00002312	-0.00000009
7603901	43547.	-0.000001	0.000003	0.000000	0.00000000	0.00002319	-0.00000009
7603901	43548.	-0.000001	0.000003	0.000000	0.00000000	0.00002326	-0.00000010
7603901	43549.	-0.000002	0.000003	0.000000	0.00000000	0.00002334	-0.00000009
7603901	43550.	-0.000002	0.000003	0.000000	0.00000000	0.00002341	-0.00000010
7603901	43551.	-0.000002	0.000003	0.000000	0.00000000	0.00002348	-0.00000009
7603901	43552.	-0.000002	0.000003	0.000000	0.00000000	0.00002356	-0.00000010
7603901	43553.	-0.000002	0.000002	0.000000	0.00000000	0.00002364	-0.00000010
7603901	43554.	-0.000002	0.000003	0.000000	0.00000000	0.00002372	-0.00000009
7603901	43555.	-0.000001	0.000003	0.000000	0.00000000	0.00002379	-0.00000010
7603901	43556.	-0.000002	0.000003	0.000000	0.00000000	0.00002387	-0.00000010
7603901	43557.	-0.000002	0.000003	0.000000	0.00000000	0.00002394	-0.00000010
7603901	43558.	-0.000002	0.000003	0.000000	0.00000000	0.00002402	-0.00000010
7603901	43559.	-0.000002	0.000003	0.000000	0.00000000	0.00002409	-0.00000010
7603901	43560.	-0.000002	0.000003	0.000000	0.00000000	0.00002417	-0.00000010
7603901	43561.	-0.000002	0.000003	0.000000	0.00000000	0.00002425	-0.00000010
7603901	43562.	-0.000002	0.000003	0.000000	0.00000000	0.00002432	-0.00000010
7603901	43563.	-0.000002	0.000003	0.000000	0.00000000	0.00002440	-0.00000009
7603901	43564.	-0.000002	0.000003	0.000000	0.00000000	0.00002448	-0.00000010
7603901	43565.	-0.000002	0.000003	0.000000	0.00000000	0.00002455	-0.00000010
7603901	43566.	-0.000001	0.000003	0.000000	0.00000000	0.00002463	-0.00000010
7603901	43567.	-0.000002	0.000003	0.000000	0.00000000	0.00002471	-0.00000010
7603901	43568.	-0.000001	0.000003	0.000000	0.00000000	0.00002479	-0.00000010
7603901	43569.	-0.000002	0.000003	0.000000	0.00000000	0.00002486	-0.00000010
7603901	43570.	-0.000002	0.000003	0.000000	0.00000000	0.00002495	-0.00000010
7603901	43571.	-0.000002	0.000003	0.000000	0.00000000	0.00002502	-0.00000010
7603901	43572.	-0.000002	0.000003	0.000000	0.00000000	0.00002510	-0.00000010
7603901	43573.	-0.000002	0.000003	0.000000	0.00000000	0.00002518	-0.00000010
7603901	43574.	-0.000002	0.000003	0.000000	0.00000000	0.00002525	-0.00000010
7603901	43575.	-0.000001	0.000003	0.000000	0.00000000	0.00002533	-0.00000010

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43576.	-0.000001	0.000003	0.000000	0.00000000	0.00002541	-0.00000010
7603901	43577.	-0.000002	0.000003	0.000000	0.00000000	0.00002549	-0.00000010
7603901	43578.	-0.000002	0.000003	0.000000	0.00000000	0.00002557	-0.00000010
7603901	43579.	-0.000002	0.000003	0.000000	0.00000000	0.00002565	-0.00000010
7603901	43580.	-0.000002	0.000003	0.000000	0.00000000	0.00002573	-0.00000010
7603901	43581.	-0.000002	0.000003	0.000000	0.00000000	0.00002581	-0.00000010
7603901	43582.	-0.000002	0.000003	0.000000	0.00000000	0.00002589	-0.00000010
7603901	43583.	-0.000002	0.000003	0.000000	0.00000000	0.00002597	-0.00000010
7603901	43584.	-0.000002	0.000003	0.000000	0.00000000	0.00002605	-0.00000010
7603901	43585.	-0.000002	0.000003	0.000000	0.00000000	0.00002613	-0.00000010
7603901	43586.	-0.000002	0.000003	0.000000	0.00000000	0.00002621	-0.00000010
7603901	43587.	-0.000002	0.000003	0.000000	0.00000000	0.00002629	-0.00000010
7603901	43588.	-0.000002	0.000004	0.000000	0.00000000	0.00002637	-0.00000010
7603901	43589.	-0.000002	0.000004	0.000000	0.00000000	0.00002645	-0.00000010
7603901	43590.	-0.000002	0.000004	0.000000	0.00000000	0.00002653	-0.00000011
7603901	43591.	-0.000002	0.000003	0.000000	0.00000000	0.00002661	-0.00000010
7603901	43592.	-0.000002	0.000003	0.000000	0.00000000	0.00002669	-0.00000010
7603901	43593.	-0.000002	0.000004	0.000000	0.00000000	0.00002677	-0.00000010
7603901	43594.	-0.000002	0.000004	0.000000	0.00000000	0.00002686	-0.00000011
7603901	43595.	-0.000002	0.000004	0.000000	0.00000000	0.00002694	-0.00000010
7603901	43596.	-0.000002	0.000003	0.000000	0.00000000	0.00002702	-0.00000011
7603901	43597.	-0.000002	0.000003	0.000000	0.00000000	0.00002710	-0.00000011
7603901	43598.	-0.000002	0.000003	0.000000	0.00000000	0.00002718	-0.00000011
7603901	43599.	-0.000002	0.000004	0.000000	0.00000000	0.00002727	-0.00000010
7603901	43600.	-0.000002	0.000004	0.000000	0.00000000	0.00002735	-0.00000010
7603901	43601.	-0.000002	0.000004	0.000000	0.00000000	0.00002743	-0.00000010
7603901	43602.	-0.000002	0.000003	0.000000	0.00000000	0.00002751	-0.00000010
7603901	43603.	-0.000002	0.000004	0.000000	0.00000000	0.00002759	-0.00000011
7603901	43604.	-0.000002	0.000003	0.000000	0.00000000	0.00002767	-0.00000010
7603901	43605.	-0.000002	0.000004	0.000000	0.00000000	0.00002775	-0.00000011
7603901	43606.	-0.000002	0.000003	0.000000	0.00000000	0.00002784	-0.00000010
7603901	43607.	-0.000002	0.000003	0.000000	0.00000000	0.00002792	-0.00000010
7603901	43608.	-0.000002	0.000003	-0.000001	0.00000000	0.00002801	-0.00000011
7603901	43609.	-0.000002	0.000004	0.000000	0.00000000	0.00002809	-0.00000011
7603901	43610.	-0.000002	0.000004	0.000000	0.00000000	0.00002818	-0.00000011

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43611.	-0.000002	0.000003	0.000000	0.00000000	0.00002826	-0.00000010
7603901	43612.	-0.000002	0.000004	0.000000	0.00000000	0.00002834	-0.00000010
7603901	43613.	-0.000002	0.000003	0.000000	0.00000000	0.00002843	-0.00000010
7603901	43614.	-0.000002	0.000004	0.000000	0.00000000	0.00002850	-0.00000011
7603901	43615.	-0.000002	0.000004	0.000000	0.00000000	0.00002859	-0.00000011
7603901	43616.	-0.000002	0.000003	0.000000	0.00000000	0.00002868	-0.00000011
7603901	43617.	-0.000002	0.000003	0.000000	0.00000000	0.00002877	-0.00000010
7603901	43618.	-0.000002	0.000004	0.000000	0.00000000	0.00002885	-0.00000011
7603901	43619.	-0.000002	0.000004	0.000000	0.00000000	0.00002893	-0.00000011
7603901	43620.	-0.000002	0.000004	0.000000	0.00000000	0.00002902	-0.00000010
7603901	43621.	-0.000002	0.000004	0.000000	0.00000000	0.00002910	-0.00000011
7603901	43622.	-0.000002	0.000003	0.000000	0.00000000	0.00002918	-0.00000011
7603901	43623.	-0.000002	0.000004	0.000000	0.00000000	0.00002927	-0.00000010
7603901	43624.	-0.000003	0.000003	0.000000	0.00000000	0.00002936	-0.00000011
7603901	43625.	-0.000003	0.000004	0.000000	0.00000000	0.00002944	-0.00000011
7603901	43626.	-0.000002	0.000003	0.000000	0.00000000	0.00002953	-0.00000011
7603901	43627.	-0.000002	0.000003	0.000000	0.00000000	0.00002962	-0.00000011
7603901	43628.	-0.000002	0.000004	0.000000	0.00000000	0.00002970	-0.00000011
7603901	43629.	-0.000002	0.000003	0.000000	0.00000000	0.00002978	-0.00000011
7603901	43630.	-0.000002	0.000004	0.000000	0.00000000	0.00002987	-0.00000011
7603901	43631.	-0.000002	0.000004	0.000000	0.00000000	0.00002996	-0.00000011
7603901	43632.	-0.000002	0.000004	0.000000	0.00000000	0.00003004	-0.00000011
7603901	43633.	-0.000003	0.000004	0.000000	0.00000000	0.00003013	-0.00000011
7603901	43634.	-0.000002	0.000003	0.000000	0.00000000	0.00003022	-0.00000011
7603901	43635.	-0.000003	0.000004	0.000000	0.00000000	0.00003031	-0.00000011
7603901	43636.	-0.000002	0.000004	0.000000	0.00000000	0.00003039	-0.00000011
7603901	43637.	-0.000002	0.000004	0.000000	0.00000000	0.00003048	-0.00000011
7603901	43638.	-0.000002	0.000004	0.000000	0.00000000	0.00003057	-0.00000011
7603901	43639.	-0.000002	0.000004	0.000000	0.00000000	0.00003065	-0.00000011
7603901	43640.	-0.000003	0.000004	0.000000	0.00000000	0.00003075	-0.00000011
7603901	43641.	-0.000002	0.000004	0.000000	0.00000000	0.00003083	-0.00000011
7603901	43642.	-0.000002	0.000004	0.000000	0.00000000	0.00003092	-0.00000011
7603901	43643.	-0.000002	0.000004	0.000000	0.00000000	0.00003101	-0.00000011
7603901	43644.	-0.000002	0.000004	0.000000	0.00000000	0.00003110	-0.00000011
7603901	43645.	-0.000002	0.000003	0.000000	0.00000000	0.00003118	-0.00000011

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43646.	-0.000002	0.000004	0.000000	0.00000000	0.00003127	-0.00000011
7603901	43647.	-0.000002	0.000004	0.000000	0.00000000	0.00003136	-0.00000011
7603901	43648.	-0.000003	0.000004	0.000000	0.00000000	0.00003145	-0.00000011
7603901	43649.	-0.000003	0.000004	0.000000	0.00000000	0.00003153	-0.00000011
7603901	43650.	-0.000002	0.000004	0.000000	0.00000000	0.00003163	-0.00000012
7603901	43651.	-0.000002	0.000004	0.000000	0.00000000	0.00003172	-0.00000011
7603901	43652.	-0.000002	0.000004	0.000000	0.00000000	0.00003180	-0.00000011
7603901	43653.	-0.000002	0.000004	0.000000	0.00000000	0.00003189	-0.00000011
7603901	43654.	-0.000002	0.000004	0.000000	0.00000000	0.00003199	-0.00000012
7603901	43655.	-0.000003	0.000004	-0.000001	0.00000000	0.00003207	-0.00000011
7603901	43656.	-0.000002	0.000004	0.000000	0.00000000	0.00003217	-0.00000012
7603901	43657.	-0.000003	0.000004	0.000000	0.00000000	0.00003226	-0.00000012
7603901	43658.	-0.000003	0.000004	0.000000	0.00000000	0.00003234	-0.00000012
7603901	43659.	-0.000003	0.000004	0.000000	0.00000000	0.00003244	-0.00000012
7603901	43660.	-0.000002	0.000004	0.000000	0.00000000	0.00003253	-0.00000012
7603901	43661.	-0.000002	0.000004	0.000000	0.00000000	0.00003262	-0.00000012
7603901	43662.	-0.000003	0.000004	0.000000	0.00000000	0.00003271	-0.00000011
7603901	43663.	-0.000003	0.000004	0.000000	0.00000000	0.00003279	-0.00000011
7603901	43664.	-0.000003	0.000004	0.000000	0.00000000	0.00003289	-0.00000012
7603901	43665.	-0.000003	0.000004	0.000000	0.00000000	0.00003298	-0.00000012
7603901	43666.	-0.000003	0.000004	0.000000	0.00000000	0.00003307	-0.00000011
7603901	43667.	-0.000003	0.000004	0.000000	0.00000000	0.00003317	-0.00000012
7603901	43668.	-0.000002	0.000004	0.000000	0.00000000	0.00003325	-0.00000012
7603901	43669.	-0.000003	0.000005	0.000000	0.00000000	0.00003335	-0.00000012
7603901	43670.	-0.000002	0.000004	0.000000	0.00000000	0.00003344	-0.00000011
7603901	43671.	-0.000002	0.000005	0.000000	0.00000000	0.00003353	-0.00000012
7603901	43672.	-0.000002	0.000004	0.000000	0.00000000	0.00003362	-0.00000012
7603901	43673.	-0.000002	0.000004	0.000000	0.00000000	0.00003371	-0.00000011
7603901	43674.	-0.000003	0.000004	0.000000	0.00000000	0.00003381	-0.00000012
7603901	43675.	-0.000003	0.000004	0.000000	0.00000000	0.00003390	-0.00000011
7603901	43676.	-0.000002	0.000004	0.000000	0.00000000	0.00003399	-0.00000012
7603901	43677.	-0.000002	0.000004	0.000000	0.00000000	0.00003409	-0.00000012
7603901	43678.	-0.000002	0.000004	0.000000	0.00000000	0.00003417	-0.00000012
7603901	43679.	-0.000002	0.000004	0.000000	0.00000000	0.00003427	-0.00000012
7603901	43680.	-0.000002	0.000005	0.000000	0.00000000	0.00003436	-0.00000012

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43681.	-0.000003	0.000004	0.000000	0.00000000	0.00003445	-0.00000012
7603901	43682.	-0.000002	0.000004	0.000000	0.00000000	0.00003455	-0.00000012
7603901	43683.	-0.000003	0.000005	0.000000	0.00000000	0.00003464	-0.00000012
7603901	43684.	-0.000003	0.000005	0.000000	0.00000000	0.00003474	-0.00000012
7603901	43685.	-0.000003	0.000004	-0.000001	0.00000000	0.00003483	-0.00000012
7603901	43686.	-0.000003	0.000005	0.000000	0.00000000	0.00003493	-0.00000012
7603901	43687.	-0.000002	0.000005	0.000000	0.00000000	0.00003502	-0.00000012
7603901	43688.	-0.000003	0.000004	0.000000	0.00000000	0.00003512	-0.00000012
7603901	43689.	-0.000003	0.000004	0.000000	0.00000000	0.00003521	-0.00000012
7603901	43690.	-0.000003	0.000004	0.000000	0.00000000	0.00003531	-0.00000012
7603901	43691.	-0.000003	0.000004	0.000000	0.00000000	0.00003540	-0.00000013
7603901	43692.	-0.000003	0.000005	0.000000	0.00000000	0.00003549	-0.00000013
7603901	43693.	-0.000003	0.000005	0.000000	0.00000000	0.00003559	-0.00000012
7603901	43694.	-0.000003	0.000005	0.000000	0.00000000	0.00003568	-0.00000012
7603901	43695.	-0.000002	0.000004	0.000000	0.00000000	0.00003578	-0.00000012
7603901	43696.	-0.000003	0.000004	0.000000	0.00000000	0.00003588	-0.00000012
7603901	43697.	-0.000003	0.000005	0.000000	0.00000000	0.00003596	-0.00000012
7603901	43698.	-0.000003	0.000004	0.000000	0.00000000	0.00003606	-0.00000013
7603901	43699.	-0.000002	0.000004	0.000000	0.00000000	0.00003616	-0.00000012
7603901	43700.	-0.000002	0.000004	0.000000	0.00000000	0.00003625	-0.00000013
7603901	43701.	-0.000003	0.000004	0.000000	0.00000000	0.00003635	-0.00000012
7603901	43702.	-0.000003	0.000004	0.000000	0.00000000	0.00003645	-0.00000012
7603901	43703.	-0.000002	0.000005	0.000000	0.00000000	0.00003654	-0.00000012
7603901	43704.	-0.000003	0.000005	0.000000	0.00000000	0.00003664	-0.00000012
7603901	43705.	-0.000003	0.000005	0.000000	0.00000000	0.00003674	-0.00000012
7603901	43706.	-0.000003	0.000004	0.000000	0.00000000	0.00003684	-0.00000012
7603901	43707.	-0.000003	0.000004	0.000000	0.00000000	0.00003693	-0.00000012
7603901	43708.	-0.000003	0.000005	0.000000	0.00000000	0.00003703	-0.00000012
7603901	43709.	-0.000002	0.000005	0.000000	0.00000000	0.00003712	-0.00000013
7603901	43710.	-0.000002	0.000004	0.000000	0.00000000	0.00003723	-0.00000012
7603901	43711.	-0.000002	0.000005	0.000000	0.00000000	0.00003732	-0.00000013
7603901	43712.	-0.000003	0.000005	0.000000	0.00000000	0.00003742	-0.00000012
7603901	43713.	-0.000003	0.000005	0.000000	0.00000000	0.00003752	-0.00000013
7603901	43714.	-0.000003	0.000005	0.000000	0.00000000	0.00003761	-0.00000013
7603901	43715.	-0.000003	0.000005	0.000000	0.00000000	0.00003772	-0.00000013

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43716.	-0.000003	0.000005	0.000000	0.00000000	0.00003781	-0.00000012
7603901	43717.	-0.000003	0.000005	0.000000	0.00000000	0.00003791	-0.00000013
7603901	43718.	-0.000003	0.000004	0.000000	0.00000000	0.00003800	-0.00000013
7603901	43719.	-0.000002	0.000005	0.000000	0.00000000	0.00003811	-0.00000012
7603901	43720.	-0.000003	0.000005	0.000000	0.00000000	0.00003821	-0.00000013
7603901	43721.	-0.000003	0.000004	0.000000	0.00000000	0.00003830	-0.00000012
7603901	43722.	-0.000002	0.000005	0.000000	0.00000000	0.00003840	-0.00000012
7603901	43723.	-0.000002	0.000005	0.000000	0.00000000	0.00003850	-0.00000013
7603901	43724.	-0.000003	0.000005	0.000000	0.00000000	0.00003860	-0.00000013
7603901	43725.	-0.000002	0.000005	0.000000	0.00000000	0.00003870	-0.00000012
7603901	43726.	-0.000002	0.000005	0.000000	0.00000000	0.00003879	-0.00000013
7603901	43727.	-0.000002	0.000005	0.000000	0.00000000	0.00003889	-0.00000013
7603901	43728.	-0.000003	0.000005	0.000000	0.00000000	0.00003900	-0.00000013
7603901	43729.	-0.000003	0.000004	0.000000	0.00000000	0.00003910	-0.00000012
7603901	43730.	-0.000002	0.000005	0.000000	0.00000000	0.00003919	-0.00000013
7603901	43731.	-0.000003	0.000005	0.000000	0.00000000	0.00003929	-0.00000013
7603901	43732.	-0.000002	0.000004	0.000000	0.00000000	0.00003940	-0.00000013
7603901	43733.	-0.000003	0.000005	0.000000	0.00000000	0.00003950	-0.00000013
7603901	43734.	-0.000002	0.000005	0.000000	0.00000000	0.00003959	-0.00000013
7603901	43735.	-0.000003	0.000005	0.000000	0.00000000	0.00003970	-0.00000013
7603901	43736.	-0.000002	0.000005	0.000000	0.00000000	0.00003980	-0.00000013
7603901	43737.	-0.000002	0.000005	0.000000	0.00000000	0.00003990	-0.00000013
7603901	43738.	-0.000003	0.000005	0.000000	0.00000000	0.00004000	-0.00000013
7603901	43739.	-0.000003	0.000004	0.000000	0.00000000	0.00004010	-0.00000013
7603901	43740.	-0.000003	0.000005	0.000000	0.00000000	0.00004020	-0.00000013
7603901	43741.	-0.000003	0.000005	0.000000	0.00000000	0.00004030	-0.00000013
7603901	43742.	-0.000003	0.000004	0.000000	0.00000000	0.00004040	-0.00000013
7603901	43743.	-0.000003	0.000005	0.000000	0.00000000	0.00004050	-0.00000013
7603901	43744.	-0.000003	0.000005	0.000000	0.00000000	0.00004060	-0.00000013
7603901	43745.	-0.000003	0.000005	0.000000	0.00000000	0.00004071	-0.00000013
7603901	43746.	-0.000003	0.000005	0.000000	0.00000000	0.00004081	-0.00000013
7603901	43747.	-0.000003	0.000005	0.000000	0.00000000	0.00004092	-0.00000013
7603901	43748.	-0.000003	0.000005	0.000000	0.00000000	0.00004101	-0.00000013
7603901	43749.	-0.000003	0.000005	0.000000	0.00000000	0.00004112	-0.00000013
7603901	43750.	-0.000003	0.000005	0.000000	0.00000000	0.00004122	-0.00000013

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43751.	-0.000003	0.000005	0.000000	0.00000000	0.00004133	-0.00000013
7603901	43752.	-0.000003	0.000005	0.000000	0.00000000	0.00004143	-0.00000013
7603901	43753.	-0.000003	0.000005	0.000000	0.00000000	0.00004153	-0.00000013
7603901	43754.	-0.000003	0.000006	-0.000001	0.00000000	0.00004163	-0.00000013
7603901	43755.	-0.000003	0.000005	0.000000	0.00000000	0.00004173	-0.00000014
7603901	43756.	-0.000003	0.000005	0.000000	0.00000000	0.00004184	-0.00000014
7603901	43757.	-0.000003	0.000005	0.000000	0.00000000	0.00004194	-0.00000013
7603901	43758.	-0.000003	0.000005	0.000000	0.00000000	0.00004205	-0.00000013
7603901	43759.	-0.000003	0.000005	0.000000	0.00000000	0.00004215	-0.00000013
7603901	43760.	-0.000003	0.000005	0.000000	0.00000000	0.00004225	-0.00000014
7603901	43761.	-0.000003	0.000005	0.000000	0.00000000	0.00004235	-0.00000013
7603901	43762.	-0.000003	0.000005	0.000000	0.00000000	0.00004246	-0.00000013
7603901	43763.	-0.000003	0.000005	0.000000	0.00000000	0.00004257	-0.00000013
7603901	43764.	-0.000003	0.000006	0.000000	0.00000000	0.00004267	-0.00000014
7603901	43765.	-0.000003	0.000005	0.000000	0.00000000	0.00004277	-0.00000013
7603901	43766.	-0.000003	0.000005	0.000000	0.00000000	0.00004288	-0.00000013
7603901	43767.	-0.000003	0.000005	0.000000	0.00000000	0.00004298	-0.00000013
7603901	43768.	-0.000003	0.000005	0.000000	0.00000000	0.00004309	-0.00000013
7603901	43769.	-0.000004	0.000005	0.000000	0.00000000	0.00004320	-0.00000013
7603901	43770.	-0.000004	0.000005	0.000000	0.00000000	0.00004330	-0.00000014
7603901	43771.	-0.000003	0.000006	0.000000	0.00000000	0.00004341	-0.00000014
7603901	43772.	-0.000003	0.000006	0.000000	0.00000000	0.00004351	-0.00000014
7603901	43773.	-0.000003	0.000005	0.000000	0.00000000	0.00004362	-0.00000013
7603901	43774.	-0.000003	0.000005	0.000000	0.00000000	0.00004372	-0.00000014
7603901	43775.	-0.000003	0.000006	0.000000	0.00000000	0.00004383	-0.00000014
7603901	43776.	-0.000003	0.000005	0.000000	0.00000000	0.00004394	-0.00000013
7603901	43777.	-0.000003	0.000005	0.000000	0.00000000	0.00004404	-0.00000013
7603901	43778.	-0.000003	0.000006	0.000000	0.00000000	0.00004414	-0.00000013
7603901	43779.	-0.000003	0.000005	0.000000	0.00000000	0.00004426	-0.00000013
7603901	43780.	-0.000003	0.000005	0.000000	0.00000000	0.00004436	-0.00000014
7603901	43781.	-0.000004	0.000006	0.000000	0.00000000	0.00004447	-0.00000014
7603901	43782.	-0.000003	0.000006	0.000000	0.00000000	0.00004458	-0.00000014
7603901	43783.	-0.000003	0.000005	0.000000	0.00000000	0.00004468	-0.00000014
7603901	43784.	-0.000004	0.000006	0.000000	0.00000000	0.00004479	-0.00000014
7603901	43785.	-0.000003	0.000005	0.000000	0.00000000	0.00004489	-0.00000013

EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A	
7603901	43786.	-0.000003	0.000006	0.000000	0.00000000	0.00004501	-0.00000014
7603901	43787.	-0.000004	0.000005	0.000000	0.00000000	0.00004512	-0.00000013
7603901	43788.	-0.000004	0.000006	0.000000	0.00000000	0.00004522	-0.00000014
7603901	43789.	-0.000004	0.000005	0.000000	0.00000000	0.00004532	-0.00000014
7603901	43790.	-0.000004	0.000005	0.000000	0.00000000	0.00004544	-0.00000013
7603901	43791.	-0.000003	0.000006	0.000000	0.00000000	0.00004554	-0.00000014
7603901	43792.	-0.000003	0.000005	0.000000	0.00000000	0.00004565	-0.00000014
7603901	43793.	-0.000003	0.000006	0.000000	-0.00000001	0.00004576	-0.00000014
7603901	43794.	-0.000003	0.000005	0.000000	0.00000000	0.00004587	-0.00000013
7603901	43795.	-0.000003	0.000005	0.000000	0.00000000	0.00004598	-0.00000013
7603901	43796.	-0.000004	0.000005	0.000000	0.00000000	0.00004609	-0.00000014
7603901	43797.	-0.000003	0.000005	0.000000	0.00000000	0.00004620	-0.00000014
7603901	43798.	-0.000003	0.000006	0.000000	0.00000000	0.00004631	-0.00000014
7603901	43799.	-0.000003	0.000006	0.000000	0.00000000	0.00004641	-0.00000014
7603901	43800.	-0.000003	0.000006	0.000000	0.00000000	0.00004652	-0.00000014
7603901	43801.	-0.000004	0.000005	0.000000	0.00000000	0.00004664	-0.00000014
7603901	43802.	-0.000003	0.000006	0.000000	0.00000000	0.00004675	-0.00000014
7603901	43803.	-0.000004	0.000006	0.000000	0.00000000	0.00004686	-0.00000014
7603901	43804.	-0.000004	0.000006	0.000000	0.00000000	0.00004697	-0.00000014
7603901	43805.	-0.000004	0.000005	0.000000	0.00000000	0.00004707	-0.00000014
7603901	43806.	-0.000003	0.000006	0.000000	0.00000000	0.00004718	-0.00000014
7603901	43807.	-0.000003	0.000006	0.000000	0.00000000	0.00004730	-0.00000014
7603901	43808.	-0.000003	0.000006	0.000000	0.00000000	0.00004741	-0.00000014
7603901	43809.	-0.000004	0.000006	0.000000	0.00000000	0.00004752	-0.00000014
7603901	43810.	-0.000003	0.000005	0.000000	0.00000000	0.00004762	-0.00000014
7603901	43811.	-0.000004	0.000006	0.000000	0.00000000	0.00004773	-0.00000014
7603901	43812.	-0.000003	0.000005	0.000000	0.00000000	0.00004785	-0.00000014
7603901	43813.	-0.000004	0.000005	0.000000	0.00000000	0.00004795	-0.00000015
7603901	43814.	-0.000003	0.000006	0.000000	0.00000000	0.00004807	-0.00000014
7603901	43815.	-0.000004	0.000005	0.000000	0.00000000	0.00004819	-0.00000014
7603901	43816.	-0.000003	0.000006	0.000000	0.00000000	0.00004829	-0.00000014
7603901	43817.	-0.000004	0.000005	0.000000	0.00000000	0.00004840	-0.00000015
7603901	43818.	-0.000003	0.000006	0.000000	0.00000000	0.00004852	-0.00000014
7603901	43819.	-0.000003	0.000006	0.000000	0.00000000	0.00004863	-0.00000014
7603901	43820.	-0.000004	0.000006	0.000000	0.00000000	0.00004874	-0.00000014

		LAGEOS	DRAG PERTURBATIONS				
EPOCH		PERIGEE	NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43821.	-0.000004	0.000006	0.000000	0.00000000	0.00004886	-0.00000015
7603901	43822.	-0.000004	0.000006	0.000000	0.00000000	0.00004896	-0.00000014
7603901	43823.	-0.000003	0.000006	0.000000	0.00000000	0.00004908	-0.00000015
7603901	43824.	-0.000004	0.000006	0.000000	0.00000000	0.00004919	-0.00000014
7603901	43825.	-0.000004	0.000006	0.000000	0.00000000	0.00004931	-0.00000014
7603901	43826.	-0.000004	0.000006	0.000000	0.00000000	0.00004942	-0.00000015
7603901	43827.	-0.000003	0.000006	0.000000	0.00000000	0.00004953	-0.00000015
7603901	43828.	-0.000004	0.000006	0.000000	0.00000000	0.00004965	-0.00000015
7603901	43829.	-0.000003	0.000006	0.000000	0.00000000	0.00004976	-0.00000014
7603901	43830.	-0.000003	0.000006	0.000000	0.00000000	0.00004987	-0.00000015
7603901	43831.	-0.000004	0.000006	0.000000	0.00000000	0.00004999	-0.00000014
7603901	43832.	-0.000003	0.000006	0.000000	0.00000000	0.00005010	-0.00000015
7603901	43833.	-0.000004	0.000007	0.000000	0.00000000	0.00005021	-0.00000014
7603901	43834.	-0.000004	0.000006	0.000000	0.00000000	0.00005033	-0.00000014
7603901	43835.	-0.000003	0.000006	0.000000	0.00000000	0.00005044	-0.00000014
7603901	43836.	-0.000004	0.000006	0.000000	0.00000000	0.00005056	-0.00000014
7603901	43837.	-0.000004	0.000006	0.000000	0.00000000	0.00005067	-0.00000015
7603901	43838.	-0.000004	0.000006	0.000000	0.00000000	0.00005078	-0.00000015
7603901	43839.	-0.000004	0.000007	0.000000	0.00000000	0.00005090	-0.00000015
7603901	43840.	-0.000003	0.000006	0.000000	0.00000000	0.00005102	-0.00000014
7603901	43841.	-0.000004	0.000006	0.000000	0.00000000	0.00005114	-0.00000015
7603901	43842.	-0.000004	0.000006	0.000000	0.00000000	0.00005125	-0.00000015
7603901	43843.	-0.000003	0.000006	0.000000	0.00000000	0.00005136	-0.00000015
7603901	43844.	-0.000004	0.000006	0.000000	0.00000000	0.00005148	-0.00000015
7603901	43845.	-0.000004	0.000007	0.000000	0.00000000	0.00005159	-0.00000015
7603901	43846.	-0.000003	0.000006	-0.000001	0.00000000	0.00005171	-0.00000015
7603901	43847.	-0.000004	0.000007	0.000000	0.00000000	0.00005182	-0.00000015
7603901	43848.	-0.000004	0.000006	0.000000	0.00000000	0.00005194	-0.00000014
7603901	43849.	-0.000004	0.000007	0.000000	0.00000000	0.00005205	-0.00000015
7603901	43850.	-0.000004	0.000006	0.000000	0.00000000	0.00005217	-0.00000015
7603901	43851.	-0.000004	0.000007	0.000000	0.00000000	0.00005229	-0.00000014
7603901	43852.	-0.000003	0.000006	0.000000	0.00000000	0.00005240	-0.00000015
7603901	43853.	-0.000004	0.000006	0.000000	0.00000000	0.00005252	-0.00000015
7603901	43854.	-0.000004	0.000006	0.000000	0.00000000	0.00005265	-0.00000015
7603901	43855.	-0.000003	0.000006	0.000000	0.00000000	0.00005275	-0.00000015

	EPOCH	LAGEOS PERIGEE	DRAG PERTURBATIONS NODE	INCLINATION	ECCENTRICITY	MEAN ANOMALY	A
7603901	43856.	-0.000004	0.000006	0.000000	0.00000000	0.00005287	-0.00000015
7603901	43857.	-0.000004	0.000006	0.000000	0.00000000	0.00005300	-0.00000015
7603901	43858.	-0.000003	0.000007	0.000000	0.00000000	0.00005311	-0.00000015
7603901	43859.	-0.000004	0.000006	0.000000	0.00000000	0.00005322	-0.00000015
7603901	43860.	-0.000004	0.000006	0.000000	0.00000000	0.00005334	-0.00000015